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City of Birmingham

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1923

BIRMINGHAM:

THE SHAKESPEARE PRESS (B'HAM) LTD., HINCKLEY STREET.

1924.



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July, 1924.

TO THE CHAIRMAN AND MEMBERS OF THE PUBLIC HEALTH
COMMITTEE.

LADIES AND GENTLEMEN,

I beg to present my report for the year 1923, which indicates that the general health of the people of Birmingham reached a higher standard than ever before.

This was probably due to three main causes—

- (1) Progressive improvement in the knowledge of the people as to what is required for the maintenance of health.
- (2) The absence of any large epidemic.
- (3) Favourable, although somewhat unpleasant, meteorological conditions.

It seems to me to be most important that the question of the education of the people in the methods necessary to secure good health should be widely recognised, because it is in this direction probably that our hope lies of still further improving the health and physique of the great mass of the population. Much has been accomplished in the past by the provision of a pure water supply, good drainage, good refuse removal, better cleansing of roads, better housing and factory conditions, vastly improved food supplies, and many other general conditions; but these provisions will not make for good health unless the individual takes advantage of them, and this can only be done if he knows how to do this.

It is true to say that the vast majority of cases of sickness are due to causes over which the individual alone has control, and perhaps to a lesser extent his physique also is under his control. I am, therefore, confident that our method of improving the health of the people must in future be directed to spreading information, so that the individual knows what is required of him in order to maintain good and vigorous health. Many organisations must play a part in this educational campaign—the school, the health nurse, the Press, special lectures and pamphlets and such like means—all must contribute their quota.

While I am convinced that in the future much must be done by the individual, there is, of course, still much to be done by the local authority whenever public opinion becomes educated to the need:—

(a) It is unnecessary to refer to the great need of better arranged houses in pleasant environment and the total abolition of all our courtyard houses.

(b) No adequate attempt has yet been made by any town to provide a proper amount of recreation space for the young, say, up to 25 years of age. Their physical development largely depends on the provision of space for out-door games. There ought to be no difference between the physique of the town dweller and that of the country dweller such as appeared in the recruiting returns during the Great War. Steps are not being specially taken to prevent a recurrence of the conditions ascertained among the recruits in 1914 and subsequent years, because the people do not seriously recognise what a large proportion of the population are of the C 3 class and, therefore, inefficient.

(c) The need, too, for permanent allotments is great.

(d) A good many indications exist to show that the Great War has left many people with somewhat unbalanced mentality. They seek pleasure and take no responsibility. There are too many neurasthenics and sex perverts whose whims are too sympathetically dealt with. The whole question of sex is looming too strongly in the lives of many of the City dwellers, with a result that Societies are being formed to instruct the young in the methods of the prevention of conception and in the means to be taken to prevent disease being contracted when they indulge in promiscuous sexual intercourse. Those things seem to me to be particularly harmful to the population in a great country and to be likely in a slow and insidious way to produce conditions which will prove disastrous in the long run.

The work of the Public Health Department was carried on during the year without any feature of unusual import being encountered. The Housing question and the repair of old property caused the largest amount of difficulty and anxiety. The Carnegie Infant Welfare Institute was opened on October 13th, and is now doing very successful work.

I regret to have to record that Dr. T. W. Beazeley, one of the Assistant Medical Officers of Health, who had been in the service of the Corporation since July, 1900, fell ill in September, 1923, and died in March, 1924. Dr. Beazeley had such sterling qualities of trustworthiness and rectitude that his loss to the Department is severely felt.

I am,

Your obedient servant,

JOHN ROBERTSON,

Medical Officer of Health.

BIRTH-RATE AND DEATH-RATE PER 1,000.



City of Birmingham.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1923.

POPULATION.

The Registrar General estimated the population of Birmingham to have been on June 30th, 1923, 946,400. Our local estimate is 936,079, and this figure has been used throughout this report, unless otherwise stated.

NATURAL INCREASE OF POPULATION.

Average annual assumed increase, 1905 to 1914, due to excess of births over deaths ... 10,000

Increase (from same cause) in 1920	...	13,660
" " " " " 1921	...	11,773
" " " " " 1922	...	8,638
" " " " " 1923	...	8,821

We have no available figures for the increase of population due to excess of immigration over emigration. This movement of the population varies from year to year as employment is good or bad. There is some evidence that at present emigration is roughly balanced by immigration and that therefore the yearly increase in the population is fairly represented by the natural increase of 8,821.

CENSUS STATISTICS.

During the year 1923 the Registrar-General issued his report on the 1921 Census of the County of Warwick, containing the figures for Birmingham. As these statistics are not easily available some of the more appropriate have been included in this report.

The Census report shows that Birmingham contained about 1/40th of the entire population of England and Wales at the Census of 1921. England and Wales, 37,885,242; Birmingham, 919,444.

The rate of increase as revealed by the Census of 1921, despite the war shrinkage, was one of the highest in the whole country. Between 1901 and 1911 the increase was at the rate of 10.7 per cent., while between 1911 and 1921 it was 9.4 per cent.

The following statement shows how the population was distributed over certain age-periods and the changes in distribution since the previous Census.

Age periods.	Population 1921.	Increase or decrease over 1911.	Proportion per 1,000 of the total population.	Increase or decrease over 1911
0—4	84,774	— 8,319	92	—18
5—9	88,408	+ 354	96	— 9
10—14	89,639	+ 7,483	97	— 1
15—19	85,573	+ 7,654	93	—
20—24	80,423	+ 5,103	88	— 2
25—34	144,608	— 2,667	157	—18
35—44	132,973	+17,251	145	+ 7
45—54	106,072	+28,407	116	+24
55—64	62,787	+14,789	68	+11
65—74	32,690	+ 6,418	36	+ 4
75 and over	11,497	+ 2,769	12	+ 2

The decrease in the number of children under five years old is due, of course, to the falling off in the birth-rate, especially during the war. The only other age-period in which a fall is recorded is between 25 and 34, and this also is due to the war which deprived the City of many thousands of men at this age period. The nett decrease of 2,667 is arrived at as shown below.

Age period 25—34.					
		Males.		Females.	Total.
1911	...	68,894	...	78,381	147,275
1921	...	65,074	...	79,534	144,608
		<hr/>		<hr/>	
		-3,820		+1,153	-2,667

From the figures given above it will be noticed that the proportionate number of people at ages over 35 shows a marked increase while the relative number of children and young adults shows a decrease.

In other words our population is an older one than it used to be.

Two people, both women, were aged 100 years or over at the time of the Census. There were 22 persons (5 men and 17 women) between 95 and 100 years, while 201 persons returned their ages as between 90 and 95 years.

In the next table will be found the population figures and other information relating to each ward in the City for the Census of 1921.

Ward.		Area in Acres.	Popula- tion 1921.	Persons per Acre.	Private Families.	Separate Dwellings Occupied.	Rooms Occupied.	Rooms per Person.
Acock's Green	...	2,269	29,910	13.2	7,092	6,584	37,646	1.27
All Saints'	...	514	4,4917	87.4	9,403	9,067	38,755	0.89
Aston	...	538	42,247	78.5	8,955	8,476	38,994	0.93
Balsall Heath	...	448	39,890	89.0	9,260	8,846	43,933	1.11
Duddeston and Nechells	...	570	42,463	74.5	8,860	8,404	34,339	0.82
Edgbaston	...	2,657	35,625	13.4	8,066	7,467	47,492	1.43
Erdington North	...	2,603	18,293	7.0	4,187	3,928	22,247	1.25
Erdington South	...	2,024	21,111	10.4	4,384	4,037	24,094	1.28
Handsworth	...	1,405	27,694	19.7	6,535	6,198	37,460	1.36
Harborne	...	2,388	16,852	7.1	3,975	3,738	20,819	1.28
King's Norton	...	2,825	22,219	7.9	4,994	4,662	25,119	1.14
Ladywood	...	302	30,183	99.9	6,930	6,388	24,859	0.83
Lozells	...	364	34,534	94.9	7,872	7,538	36,643	1.07
Market Hall	...	342	18,982	55.5	3,913	3,771	14,134	0.84
Moseley and King's Heath	...	3,009	30,101	10.0	6,982	6,597	42,274	1.47
Northfield	...	5,751	11,174	1.9	1,851	1,752	9,343	1.14
Rotton Park	...	683	43,824	64.2	9,394	8,737	40,146	0.97
St. Bartholomew's	...	517	39,804	77.0	8,488	7,758	31,051	0.79
St. Martin's and Deritend	...	410	44,990	109.7	9,765	8,947	34,017	0.78
St. Mary's	...	353	34,465	97.6	7,256	6,625	24,966	0.76
St. Paul's	...	388	31,550	81.3	7,151	6,552	23,930	0.77
Saltley	...	1,196	31,416	26.3	6,676	6,139	32,660	1.07
Sandwell	...	1,538	19,462	12.7	4,689	4,403	25,530	1.32
Selly Oak	...	1,710	30,073	17.6	6,304	5,830	30,404	1.06
Small Heath	...	687	31,248	45.5	7,179	6,663	35,789	1.16
Soho, ...	...	724	27,989	38.7	6,577	6,165	33,715	1.21
Sparkbrook	...	618	36,670	59.3	8,275	7,772	40,263	1.11
Sparkhill	...	2,644	25,036	9.5	6,157	5,690	32,891	1.34
Washwood Heath	...	1,352	39,569	29.3	8,668	8,094	41,444	1.05
Yardley	...	2,772	17,153	6.2	3,975	3,631	20,294	1.19
City	...	43,601	919,444	21.1	203,813	190,459	945,251	1.06

Judged by the standard of rooms per person the most crowded wards were St. Mary's, St. Paul's, St. Martin's and Deritend, and St. Bartholomew's.

At the Census of 1921 there were only 3,147 dwellings returned as "vacant on Census night." This includes dwellings temporarily unoccupied as well as genuine voids. At the 1911 Census the number of dwellings vacant was 12,892.

The table following shows how Birmingham people were housed in 1921.

Families occupying	No. of Families.	Total No. of Persons.
1 room	4,185	9,272
2 rooms	12,610	36,395
3 „	44,862	195,878
4 „	30,993	136,926
5 „	47,545	225,746
6—7 „	54,282	243,752
8—9 „	7,235	33,486
10 or over	2,101	11,494

Note.—Lodgers, if boarding separately, are classed as separate families.

Thus, one quarter of the entire population of the City live in dwellings containing three rooms or less.

This would not matter so much if the families were small, but in many cases they are large, as shown below.

Family consisting of	Number of such Families occupying		
	One Room.	Two Rooms.	Three Rooms.
1 person ...	1,363 ...	1,361 ...	1,580
2 persons ...	1,371 ...	4,562 ...	7,017
3 „ ...	913 ...	3,566 ...	8,948
4 „ ...	353 ...	1,660 ...	8,555
5 „ ...	123 ...	737 ...	6,829
6 „ ...	44 ...	394 ...	4,919
7 „ ...	12 ...	184 ...	3,303
8 „ ...	3 ...	99 ...	1,942
9 „ ...	2 ...	33 ...	1,035
10 „ ...	— ...	9 ...	506
11 „ ...	1 ...	4 ...	152
12 and over ...	— ...	1 ...	76

Those who know what a three-roomed house in Birmingham is like will appreciate what it means for such large families to be living in them.

Since 1911 the proportion of “families” living in single rooms has risen from 0.9 per cent. to 2.1 per cent., and of those living in two rooms from 1.9 per cent. to 6.2 per cent.

The Census showed that over 14,000 people were living in institutions, as follows:—

Institution.	No. of Institutions.	Total Population. (including staff)	Inmates only.
Workhouses	3	3525	3312
Separate Poor Law Institution for the sick	2	1164	862
Other Poor Law Institutions	7	1665	1486
Homes, &c., for lunatics	4	1673	1451
Homes, &c., for cripples	1	127	101
Homes, &c., for blind	2	196	152
Homes, &c., for deaf and dumb	1	213	173
Hospitals (not military or naval)	21	3508	2354
Convalescent and Nursing Homes	54	1287	717
Prisons	1	440	408
Reformatory Schools, &c.	2	273	252
	98	14,071	11,268

MARRIAGES.

During the year 1923, 7598 marriages were registered, *i.e.*, 15,196 persons were married. This represents a rate of 16.3 per 1,000. In 1922 the rate was 15.5, and in 1921 15.9. In 1913 it was 16.9, and in earlier years it was as follows:—

1881	16.2
1891	19.2
1901	18.8
1911	19.2

BIRTHS.

There were 19,069 babies born in 1923, as compared with 19,850 in 1922; 22,134 in 1921; and 25,069 in 1920.

BIRTH-RATES PER 1,000.

	Birmingham.			England and Wales.		
1901-1905	30.7	...	...	28.2
1906-1910	28.3	...	...	26.3
1911-1915	25.9	...	...	23.6
1916	23.1	...	...	20.9
1917	19.7	...	...	17.8
1918	19.4	...	...	17.7
1919	20.9	...	...	18.5
1920	27.6	...	...	25.5
1921	24.1	...	...	22.4
1922	21.5	...	...	20.6
1923	20.4	...	...	19.7

BIRTH-RATES IN WARDS.

The next table is prepared to indicate as far as possible where the birth-rate has fallen.

	Ward.			Birth-rate, 1923.	Average Birth-rate 1912-1914.	Decrease.	Average.
Central Wards ...	St. Paul's	28.2	32.3	—4.1	5.6
	St. Mary's	...	...	30.3	35.2	—4.9
	Duddeston and Nechells	...	...	27.5	37.2	—9.7
	St. Bartholomew's	...	...	29.0	34.5	—5.5
	St. Martin's and Deritend	...	...	27.0	33.1	—6.1
	Market Hall	...	...	20.7	25.6	—4.9
	Ladywood	25.8	29.5	—3.7	
Middle Ring ...	Lozells	18.4	23.2	—4.8	6.6
	Aston	...	...	23.1	31.4	—8.3
	Washwood Heath	...	...	22.1	29.9	—7.8
	Saltley	...	...	21.6	29.0	—7.4
	Small Heath	...	...	15.5	23.5	—8.0
	Sparkbrook	...	...	18.5	25.5	—7.0
	Balsall Heath	...	...	18.6	23.6	—5.0
	Edgbaston	...	...	13.5	16.4	—2.9
	Rotton Park	...	...	21.7	29.0	—7.3
	All Saints'	21.9	29.8	—7.9	
Outer Ring ...	Soho	16.0	22.6	— 6.6	6.1
	Sandwell	...	...	14.1	22.0	— 7.9
	Handsworth	...	...	14.2	19.6	— 5.4
	Erdington North	...	...	18.1	22.8	— 4.7
	Erdington South	...	...	16.8	22.2	— 5.4
	Yardley	...	...	17.4	23.9	— 6.5
	Acock's Green	...	...	17.0	27.1	—10.1
	Sparkhill	...	...	17.1	18.5	— 1.4
	Moseley and King's Heath	...	...	13.2	17.5	— 4.3
	Selly Oak	...	...	17.7	26.7	— 9.0
	King's Norton	...	...	17.1	22.8	— 5.7
	Northfield	...	...	20.8	22.5	— 1.7
	Harborne	13.0	22.6	— 9.6	

Everywhere there has been a reduction in the birth-rate—varying from 1.4 in Sparkhill Ward to 10.1 in Acock's Green Ward. There was a notable fall in the birth-rate in Duddeston and Nechells Ward. St. Mary's Ward, which usually has the highest birth-rate, again has the highest, while Harborne, Edgbaston and Moseley Wards have low rates.

The reduction in the birth-rate compared with the average rates in 1912, 1913 and 1914 is as follows :—

For central wards	...	...	...	21 per cent.
For middle ring of wards	...	...	...	34 " "
For outer ring of wards	...	...	...	37 " "

There has, therefore, been a reduction everywhere, but it is greater in the outer districts of the City.

ILLEGITIMACY.

There were 610 illegitimate births, as compared with 719 in 1922, 823 in 1921, 894 in 1920, 858 in 1919, and 858 in 1918. These births represent 3.2 per cent. of the total births. The infant mortality rate among these babies was 151 per 1,000 births against 69 among the legitimate babies.

NOTIFICATION OF BIRTHS ACT.

During the year under review 18,590 births of living children were notified representing 97 per cent. of the total births. This early unpaid notification enables Infant Welfare work to be commenced much earlier than it could be under the old system of Birth Registration.

There were also 629 still births reported, that is one to every thirty live births.

DEATHS.

The deaths of 10,248 persons were registered during 1923, as against 11,212 and 10,361 in the two preceding years. Of the deaths 5,210 were males and 5,038 females.

DEATH-RATE.

The death-rate was 11.0 per 1,000 of the population, being 11.8 per 1,000 for males and 10.2 for females.

The rates in Birmingham and England and Wales are shown below :—

DEATH-RATES PER 1,000 IN BIRMINGHAM, 1871 TO 1923.

			Birmingham.		England and Wales.
1871-1875 (Old City)	...	...	25.2	...	22.0
1876-1880	"	...	22.8	...	20.8
1881-1885	"	...	20.7	...	19.4
1886-1890	"	...	20.2	...	18.9
1891-1895	"	...	20.3	...	18.7
1896-1900	"	...	20.5	...	17.7
1901-1905 (Present Area)	...	...	16.5	...	16.0
1906-1910	"	...	15.0	...	14.7
1911-1915	"	...	14.6	...	14.3
1916	"	...	13.5	...	14.4
1917	"	...	12.6	...	14.4
1918	"	...	15.2	...	17.6
1919	"	...	13.0	...	13.8
1920	"	...	12.6	...	12.4
1921	"	...	11.3	...	12.1
1922	"	...	12.1	...	12.9
1923	"	...	11.0	...	11.6

COMPARATIVE DEATH-RATES IN NINE LARGEST TOWNS.

(From Registrar-General's Figures.)

London	...	...	...	...	...	11.2 per 1,000
Glasgow	...	...	...	...	...	14.2 "
Birmingham	...	...	...	...	...	10.7 "
Liverpool	...	...	...	...	...	13.5 "
Manchester	...	...	...	...	...	13.1 "
Sheffield	...	...	...	...	...	11.3 "
Leeds	...	...	...	...	...	12.6 "
Edinburgh	...	...	...	...	...	13.8 "
Bristol	...	...	...	...	...	11.2 "

DEATH-RATES IN MUNICIPAL WARDS.

The next table gives the population and the death-rate in each ward:—

	Ward.	Approximate Population.	Death-Rate
Central Wards ...	St. Paul's	31,400	13.7
	St. Mary's	33,800	17.1
	Duddeston and Nechells ...	45,300	13.7
	St. Bartholomew's	40,200	13.5
	St. Martin's and Deritend ...	44,900	14.0
	Market Hall	18,700	12.1
	Ladywood	30,400	12.5
Middle Ring ...	Lozells	34,700	11.8
	Aston	42,600	11.6
	Washwood Heath	38,100	10.1
	Saltley	31,200	8.4
	Small Heath	31,300	9.7
	Sparkbrook	36,800	10.4
	Balsall Heath	39,600	10.9
	Edgbaston	35,000	10.6
	Rotton Park	41,700	10.7
	All Saints'	43,700	11.4
Outer Ring ...	Soho	27,800	10.3
	Sandwell	19,800	8.9
	Handsworth	28,200	9.8
	Erdington North	19,700	8.9
	Erdington South	21,600	8.1
	Yardley	17,300	8.3
	Acocck's Green	30,300	8.7
	Sparkhill	26,100	9.4
	Moseley and King's Heath ...	29,000	11.0
	Selly Oak	28,900	8.8
	King's Norton	23,900	8.1
	Northfield	9,030	7.9
	Harborne	16,600	9.8

The highest mortality rate was as usual in St. Mary's Ward—while the lowest was in Northfield Ward.

REDUCTION IN THE DEATH-RATE.

The following comparison of death-rates registered in the last five years with that in the five preceding years indicates in a general way where the reduction is the largest. It is gratifying to notice that the reduction has been greatest in the poorest wards.

	Ward.	Mean Death-Rate, 1914-1918.	Death-Rate, 1919-1923.	Increase or Decrease.
Central Wards ...	St. Paul's	20.2	15.4	—4.8
	St. Mary's	22.8	17.7	—5.1
	Duddeston and Nechells ...	19.3	14.5	—4.8
	St. Bartholomew's	19.3	15.4	—3.9
	St. Martin's and Deritend ...	20.1	16.1	—4.0
	Market Hall	17.8	13.7	—4.1
	Ladywood	17.1	14.7	—2.4
Middle Ring ...	Lozells	13.7	12.1	—1.6
	Aston	14.8	12.3	—2.5
	Washwood Heath	11.8	10.9	—0.9
	Saltley	12.1	9.9	—2.2
	Small Heath	12.0	10.6	—1.4
	Sparkbrook	13.0	11.6	—1.4
	Balsall Heath	13.3	12.2	—1.1
	Edgbaston	12.3	11.4	—0.9
	Rotton Park	14.5	12.1	—2.4
	All Saints'	14.3	11.9	—2.4

Outer Ring ...	Soho	...	...	...	12.4	11.1	—1.3
	Sandwell	...	...	...	10.5	9.9	—0.6
	Handsworth	...	...	...	10.8	10.1	—0.7
	Erdington North	...	...	...	10.9	9.9	—1.0
	Erdington South	...	...	...	9.6	9.7	+0.1
	Yardley	...	...	...	10.3	9.2	—1.1
	Acock's Green	...	...	...	11.4	9.3	—2.1
	Sparkhill	...	...	...	9.9	9.8	—0.1
	Moseley and King's Heath	...	...	...	10.2	11.1	+0.9
	Selly Oak	...	...	...	10.9	9.6	—1.3
	King's Norton	...	...	...	9.4	8.4	—1.0
	Northfield	...	...	...	10.5	8.5	—2.0
	Harborne	...	...	...	10.9	9.9	—1.0
Whole City					14.1	12.0	—2.1

OVERCROWDING IN RELATION TO DEATH-RATES.

In the next table the wards are arranged in the order of their mean death-rate in the years immediately before and after the Census, and alongside the death-rates are placed (1) the density of population and (2) the number of rooms per person.

Ward.	Mean Death-rate 1920—1922.	Persons per acre.	Rooms per person.
St. Mary's	17.8	97.6	.76
St. Martin's and Deritend	16.0	109.7	.78
St. Paul's	15.6	81.3	.77
St. Bartholomew's	15.6	77.0	.79
Ladywood	15.0	99.9	.83
Duddeston and Nechells	14.4	74.5	.82
Market Hall	14.2	55.5	.84
Balsall Heath	12.3	89.0	1.11
Aston	12.2	78.5	.93
Rotton Park	12.2	64.2	.97
All Saints'	11.9	87.4	.89
Lozells	11.9	94.9	1.07
Sparkbrook	11.5	59.3	1.11
Soho	11.3	38.7	1.21
Edgbaston	11.2	13.4	1.43
Washwood Heath	10.9	29.3	1.05
Moseley and King's Heath	10.9	10.0	1.47
Small Heath	10.8	45.5	1.16
Saltley	10.1	26.3	1.07
Erdington South	9.9	10.4	1.28
Sandwell	9.9	12.7	1.32
Sparkhill	9.9	9.5	1.34
Erdington North	9.8	7.0	1.25
Handsworth	9.7	19.7	1.36
Harborne	9.5	7.1	1.28
Acock's Green	9.4	13.2	1.27
Selly Oak	9.3	17.6	1.06
Yardley	9.2	6.2	1.19
Northfield	8.8	1.9	1.14
King's Norton	8.2	7.9	1.14

It is clear from this Table that in the main the mortality shows a fairly close relation to the density of the population and to the overcrowding as judged by the number of rooms per person.

MORTALITY AT DIFFERENT AGE-PERIODS.

The death-rates at different age periods during 1923 were as follows:—

				Approximate Population.	Deaths.	Approximate, Death-Rate per 1,000.
Under 1 year	...	...	...	18,110	1,370	75.6
1 and under 2	...	...	...	18,660	386	20.7
2 " 3	...	...	...	20,310	161	7.9
3 " 4	...	...	...	22,950	114	5.0
4 " 5	...	...	...	17,520	64	3.7
5 " 10	...	...	...	88,890	215	2.4
10 " 15	...	...	...	90,050	154	1.7
15 " 20	...	...	...	85,970	211	2.5
20 " 25	...	...	...	80,800	227	2.8
25 " 35	...	...	...	145,280	534	3.7
35 " 45	...	...	...	133,590	720	5.4
45 " 55	...	...	...	106,560	1,162	10.9
55 " 65	...	...	...	63,080	1,496	23.7
65 and upwards	...	...	...	44,390	3,434	77.4

The next Table indicates the age periods mainly affected by the reduction in the death rate during the past ten years.

Age periods.		Death-rates 1910—1912.		Death-rates 1920—1922.		Percentage reduction.
0—4 years	...	49.1	...	32.0	...	34.8
5—9 "	...	3.8	...	3.0	...	21.0
10—14 "	...	1.8	...	1.7	...	5.5
15—19 "	...	2.4	...	2.2	...	8.3
20—24 "	...	3.8	...	2.9	...	23.7
25—34 "	...	4.5	...	3.8	...	15.6
35—44 "	...	8.5	...	6.7	...	21.2
45—54 "	...	15.8	...	11.0	...	30.4
55—64 "	...	31.1	...	23.7	...	23.8
65—74 "	...	63.0	...	54.4	...	12.4
75 and over	...	146.0	...	136.0	...	6.8
All ages	...	15.2	...	12.0	...	21.1

From this Table it will be noted that a marked reduction has occurred at all age groups. It is often said that modern methods tend to preserve the lives of weakly babies, but not those of older persons whose lives are of real use to the community. From the above figures such a criticism is obviously untrue.

CHIEF CAUSES OF DEATH.

The next Table shows the chief causes of death in 1923, and the five previous years.

Deaths from			1918.	1919.	1920.	1921.	1922.	Average, 1918-1922.	1923.	Increase or Decrease.
Measles	...	...	71	189	147	153	79	128	186	+ 58
Whooping Cough	...	...	277	60	182	93	356	194	44	—150
Diphtheria	...	...	160	126	201	120	89	139	139	—
Influenza	...	...	2,172	1,062	421	134	442	846	264	—582
Pulmonary Tuberculosis	...	...	1,171	1,019	843	890	899	964	860	—104
Other Tuberculosis	...	...	214	169	158	145	150	167	146	— 21
Cancer	...	...	883	935	1,014	1,020	1,090	988	1,092	+104
Cerebral Hæmorrhage	...	...	455	473	464	474	499	473	458	— 15
Convulsions (under 5)	...	...	107	96	111	85	61	93	66	— 27
Organic Diseases of Heart	...	...	1,183	1,187	1,143	1,113	1,214	1,168	1,120	— 48
Arterio Sclerosis	...	...	137	203	184	198	250	194	205	+ 11
Cerebral Embolism and Thrombosis	...	...	127	98	100	79	98	100	117	+ 17
Bronchitis	...	...	1,059	1,285	1,066	798	1,080	1,058	897	—161
Pneumonia	...	...	1,270	1,013	1,011	950	998	1,048	834	—214
Diarrhœa and Enteritis	...	...	445	260	309	442	224	336	261	— 75
Nephritis and Bright's Disease	...	...	251	230	200	219	230	226	255	+ 29
Premature Birth	...	...	379	437	507	447	439	442	356	— 86
Debility, etc.	...	...	182	208	207	214	151	192	111	— 81
Old Age	...	...	451	628	576	577	556	558	493	— 65
Suicide	...	...	60	98	98	93	112	92	130	+ 38
Accident	...	...	300	314	313	238	234	280	285	+ 5

A FIFTY YEARS RETROSPECT.

In the following Table is set out the mortality from certain causes during the past ten years compared with that of 50 years ago.

	Average. 1874-1883	Average 1914-1923	Decrease.	Percentage Decrease.
Death-rate (all causes)	22.9	13.05	9.85	43.0
Infant Mortality Rate (per 1,000 births)	166	95	71	42.8
Death-rates from:—				
Enteric Fever ... ..	.26	.01	.25	96.0
Smallpox ... ..	.26	—	.26	100.0
Measles ... ..	.36	.22	.14	39.0
Scarlet Fever ... ..	.95	.06	.89	93.7
Whooping Cough ... ..	.82	.22	.60	73.2
Diphtheria and Croup ... ..	.37	.16	.21	56.8
Pulmonary Tuberculosis	2.03	1.13	.90	44.3
Other forms of Tuberculosis ... ..	.49	.21	.28	57.1
Diarrhœa and Enteritis	1.55	.47	1.08	69.7

INFANT MORTALITY.

(See page 39).

INFECTIOUS DISEASES.

The deaths during 1923 from some of the chief infectious diseases were as follows:—

Disease.	Deaths in 1923.	Average 1913-22.	Above or below the average.
Enteric Fever	4	8	— 4
Smallpox	0	0	—
Measles	186	220	— 34
Scarlet Fever	39	67	— 28
Whooping Cough	44	207	— 163
Diphtheria	139	149	— 10
Diarrhœa and Enteritis	261	496	— 235
Pulmonary Tuberculosis	860	1,034	— 174
Other Forms of Tuberculosis	146	206	— 60
Influenza	264	487	— 223

The prevalence of the notifiable diseases is shown in the next table:—

Disease.	Cases in 1923.	Average 1913-22.	Above or below the average.
Enteric Fever	32	35	— 3
Smallpox	3	0	+ 3
Scarlet Fever	2,619	3,712	— 1,093
Diphtheria	1,537	1,195	+ 342
Erysipelas	440	521	— 81
Puerperal Fever	186	128	+ 58
Ophthalmia Neonatorum	433	338	+ 95
Pulmonary Tuberculosis	1,785	2,889	— 1,104
Other Forms of Tuberculosis	381	456	— 75
Acute Primary or Influenzal Pneumonia	2,119	Only recently notifiable.	
Cerebro-Spinal Fever	4	21	— 17
Acute Poliomyelitis	33	11	+ 22
Polio Encephalitis	3	Only recently notifiable.	
Encephalitis Lethargica	29	"	"
Malaria	12	"	"
Dysentery	22	"	"
Trench Fever	0	"	"

The elementary school teachers reported the following cases, to which visits were paid by Health Visitors (see page 94):—

Measles	...	...	...	...	7,787
German Measles	...	...	...	...	96
Whooping Cough	...	...	...	...	1,772
Chicken Pox	...	...	...	...	3,999
Mumps	...	...	...	...	1,072

ENTERIC FEVER.

The statistics relating to this disease are set out in the table below. The record for 1923, while not so good as in 1922, is yet a satisfactory one.

	Cases reported.	Deaths	Mortality rate per cent.	Death-rate per 1,000.
1916	19	5	26	.01
1917	22	7	32	.01
1918	23	5	22	.01
1919	34	9	26	.01
1920	12	0	—	—
1921	26	5	19	.01
1922	11	3	27	.00
1923	32	4	12	.00

Ten years ago (1913) the cases numbered 102. In 1901 there were 842 cases notified.

The cases in Birmingham have been shown to be caused by the *Bacillus Typhosus* in the great majority of cases. During the latter part of 1923 a localised occurrence of 10 cases of Enteric Fever was due to the *Bacillus Paratyphosus B.* All of these cases were in a somewhat circumscribed area, and all were in children or young adults. Further cases of this unusual infection were reported in 1924. It is probable that some of the milder cases may have been entirely overlooked. No cause has been found for this peculiarly localised outbreak, notwithstanding the fact that every apparent source of infection was examined most carefully. It was ascertained that somewhat similar outbreaks had taken place in other districts far removed from Birmingham, and that in most of these no common cause of the spread of the infection could be found.

SMALLPOX.

Three cases of this disease were notified during 1923. All were of the mild type, which, in addition to mildness, has the curious quality of being much less infectious than ordinary Smallpox. All three cases were in unvaccinated persons. The first case was that of a married woman, who had returned from spending a holiday in Gloucester. This case was typical Smallpox. No subsequent cases occurred in the house, notwithstanding the fact that several of the occupants were anti-vaccinators who refused to be vaccinated.

In addition to the three cases mentioned above, two recovered cases were reported by a doctor who had had considerable experience in dealing with Smallpox. They had been considered originally to be Chickenpox. These two girls did not spread the disease in Birmingham. Both of them were subsequently vaccinated on two occasions without result. During the period that they were infectious they had visited a village in the South of England and spread Smallpox there. This we only learned after the cases had been investigated in Birmingham.

The disease was widely prevalent during 1923 in certain districts in England. In Derbyshire (including the towns) 463 cases were reported, and in Gloucestershire 945 cases. In the County of Nottingham 435 cases, and in Staffordshire 10 cases were reported. Altogether there were 2473 cases of Smallpox notified in England during 1923.

Owing to the extensive prevalence of the disease in Gloucestershire, Derbyshire, and Nottinghamshire, the medical profession in Birmingham were alert to the possible occurrence of an outbreak in the city, and asked for assistance in the diagnosis of suspicious cases on many occasions.

The Smallpox Hospital was brought into use for the treatment of the notified cases, no difficulty being experienced, as the wards there are always kept in readiness to deal with cases on an hour's notice. A matron and a certain number of nurses and maids are always available for staffing.

This mild type of smallpox continues to be prevalent in many of the colliery districts, and attacks the unvaccinated or those badly protected by inefficient vaccination.

VACCINATION.

The following statement shows the number of vaccinations amongst the children born during the year ended December 31st, 1922:—

Births returned	...	...	...	21,657		
Conscientious objections	...	...	...	4,966, or 22.9 per cent. of total.		
Died unvaccinated	...	...	...	1,307		
Successfully vaccinated	...	...	...	12,684, or 62.3 per cent. of survivors.		
Insusceptible	...	...	...	35, or 0.2	"	"
Postponed by medical certificate	...	...	...	354, or 1.7	"	"
Removed to other districts	...	...	...	388, or 1.9	"	"
Lost sight of	...	...	...	725, or 3.6	"	"
Still under notice	...	...	...	1,198, or 5.9	"	"

MEASLES.

The reported cases of Measles numbered 7,787 during 1923, and there were 186 deaths. While the death statistics accurately represent the mortality from Measles, the reported cases represent mainly children excluded from school on account of Measles, as there is now no obligation on a parent to report cases of Measles unless he has children attending a public elementary school.

The Measles statistics for 20 years are set out in the accompanying table.

	CASES.		DEATHS.		Death-Rate (Measles only).
	Measles.	German Measles.	Measles.	German Measles.	
1904	?	?	243	?	.31
1905	?	?	300	?	.38
1906	?	?	275	?	.34
1907	?	?	409	?	.51
1908	?	?	70	?	.08
1909	?	?	676	?	.82
1910	?	?	42	?	.05
1911	?	?	395	?	.47
1912	7,693*	1,088*	571	3	.67
1913	3,661*	85*	398	1	.46
1914	4,612*	61*	310	—	.35
1915	8,144*	680*	420	—	.47
1916	10,635	4,996	101	1	.11
1917	15,516	472	333	4	.37
1918	5,413	300	71	1	.08
1919	15,158	565	189	—	.20
1920	7,144*	477*	147	2	.16
1921	4,618*	121*	153	1	.17
1922	4,147*	125*	79	0	.09
1923	7,787*	96*	186	1	.20

* Partial notification only through schools.

The ages at which death occurred were as follows:—

					No. of deaths.		Percentage of total deaths.	
Under 1 year	...	...	...	...	41	...	22	
Between 1 and 2 years	...	...	...	...	77	...	42	
" 2 " 3 "	...	...	...	...	32	...	17	
" 3 " 4 "	...	...	...	...	21	...	11	
" 4 " 5 "	...	...	...	...	2	...	1	
Over 5 years	...	...	...	...	13	...	7	

Very few children in Birmingham escape an attack of Measles. In this respect Measles is the most widespread and diffusible infection we know of. During the years when Measles was a compulsory notifiable disease 46,722 cases were reported with 694 deaths—a fatality rate of 1.5 per cent.

The important fact to remember is that few, if any, deaths should occur from Measles if the nursing and environment of the patient are good.

Young children attacked with Measles need clean surroundings, a warm room, and an adequate supply of fresh air. In addition, the majority of children require the aid of a skilled nurse for a few days if the attack is a severe one. Arrangements have been made with all the nursing societies in Birmingham to supply a visiting nurse at once, on the request of the Public Health Department, in cases of Measles, Whooping Cough, and Pneumonia. Similarly, district nurses are entitled to undertake the nursing of any serious cases of Measles they may hear of and to receive a grant for the case if they notify the Public Health Department when called in. In this way there ought to be no delay in commencing their work. A grant of 10/- per case is made to the Societies as a result of a Conference with them. During 1923 fees for the nursing of 761 cases were paid under this arrangement.

SCARLET FEVER.

The following table shows the corrected number of cases and deaths from this disease since 1916:—

Year.			Cases reported.	Deaths.	Percentage Mortality based on cases notified.	Death-rate per 1,000 of population.
1916	...	...	1,796	26	1.45	.03
1917	...	...	1,143	12	1.05	.01
1918	...	...	1,035	11	1.06	.01
1919	...	...	2,821	45	1.60	.05
1920	...	...	5,563	110	1.98	.12
1921	...	...	3,320	40	1.20	.04
1922	...	...	3,250	36	1.11	.04
1923	...	...	2,619	39	1.49	.04

The fatality-rate was slightly higher than in the preceding two years. Of the cases originally reported as Scarlet Fever 1,787 were removed to Hospital (68 per cent.), while 826 were kept at home. The fatality-rate of the home treated cases was 0.4 per cent., while that of the Hospital treated cases was 2.0 per cent. As a general rule mild cases with adequate home accommodation are not removed to Hospital. This accounts for the difference in the fatality-rate.

AGES OF THE PATIENTS.

Ages.			Cases notified.*	Deaths.	Case fatality per cent.
Under 5 years	...	...	548	17	3.1
5—9 years	...	...	1,115	14	1.3
10—14 years	...	...	547	4	0.7
15—19 years	...	...	201	1	0.5
20 years and over	...	...	208	3	1.4
All ages	...	...	2,619	39	1.5

* Corrected for errors in diagnosis.

Here again is a disease peculiarly fatal to infants under five years, although fortunately these infants are not so liable to infection as children over five years of age.

A great deal of permanent damage is done to many children by what is regarded as a mild attack of Scarlet Fever. The infection is always accompanied by some septic complication. This may or may not give trouble at the time but results frequently follow long after the Scarlet Fever has subsided, so long indeed that the secondary trouble cannot always be associated with the Scarlet Fever infection.

On an average somewhat less than 3,000 attacks of Scarlet Fever are reported annually. There are on an average about 21,000 infants born, so that not more than 14 per cent. of the community are attacked by Scarlet Fever, while 86 per cent. escape.

From long observation of the behaviour of Scarlet Fever it would appear that the majority of young people have a natural immunity sufficient to protect them against all the milder types of Scarlet Fever infection. This is in sharp distinction from measles infection where there appears to be no natural immunity and therefore a high incidence rate.

SECONDARY CASES OF SCARLET FEVER.

Of the 1,787 patients removed to hospital 154 were followed by 207 further cases in the homes (92 before removal and 115 after removal to hospital), while among the 826 cases wholly treated at home 66 patients were followed by 86 secondary cases.

RETURN CASES.

Of the 2,619 cases of Scarlet Fever occurring during the year 124 were cases developing in the homes within a month following the discharge of 93 original patients from hospital or from home isolation.

Of these 93 infecting patients, 77 were discharged from hospital and were followed by 104 return cases, while 16 released from isolation at home were followed by 20 return cases.

	Infecting cases discharged.	Number of infecting cases each followed by					Total Return Cases.
		1 R.C.	2 R.Cs.	3 R.Cs.	4 R.Cs.	8 R.Cs.	
Patients treated in hospital ...	77	59	15	1	1	1*	104
Patients treated at home ...	16	12	4	—	—	—	20
	93	71	19	1	1	1	124

(Including seven Diphtheria cases followed by one of Scarlet Fever each and three Diphtheria cases followed by two of Scarlet Fever each.)

* This case was in a Girls' Home.

WHOOPING COUGH.

The incidence and mortality from this disease was relatively low during 1923, as will be seen from the following table:—

Ages at death.						1918.	1919.	1920.	1921.	1922.	1923.	Totals.
Under 1 year	...	...	...	...	...	95	19	77	50	147	17	405
Between 1 and 2 years	...	...	...	...	...	98	21	59	26	135	16	355
" 2 " 3 "	...	...	...	...	...	45	8	17	5	46	6	127
" 3 " 4 "	...	...	...	...	...	19	7	12	6	16	3	63
" 4 " 5 "	...	...	...	...	...	9	2	9	1	5	1	27
Over 5 years	...	...	...	...	...	11	3	8	5	7	1	35
Totals (Average 169)	...	...	...	...	...	277	60	182	93	356	44	1,012

From the above table it will be seen that during the past six years 75 per cent. of the deaths from Whooping Cough occurred among infants under two years of age, and further, that the mortality was actually highest during the first year of life.

Waves of Whooping Cough prevalence recur about every other year, and cause widespread havoc among infants. As a killing infectious disease among children it ranks third in fatality, as is seen from the following figures:—

Average deaths 10 years 1913—1922.					
Diarrhoea	...	...	...	...	496
Measles	...	...	...	...	220
Whooping Cough	...	...	...	...	207
Diphtheria	...	...	...	...	149
Scarlet Fever	...	...	...	...	67

Year after year the mortality from Whooping Cough is four or five times greater in the central wards of the City than it is in the outer ring of wards. If the people used the same intelligence and care in the central areas as the large population (300,000) living in the outer wards, Whooping Cough would lose its evil reputation as a killing disease.

The ward distribution of deaths indicates clearly that it is care and attention that children need when the disease occurs, in order to prevent serious results. Like Scarlet Fever and Measles, Whooping Cough leaves sequelæ which frequently damage health for many years or permanently.

Consideration was given some time ago to the possibility of admitting severe cases of Whooping Cough into Hospital, and it was decided that for the present this was not desirable for the following reasons :—

1. The hospital accommodation needed during a sudden outbreak would be enormous unless a selection of the worst cases were to be made. This would mean home visitation and delay.
2. All of the worst cases were in young infants, many breast-fed. In some of these it would be necessary to admit mother and infant for indefinite periods.
3. It is almost certain that most of these "worst" cases would be admitted with Broncho-pneumonia well-developed, and, therefore, the mortality would be so high as to bring any hospital into disrepute.

The arrangement by which skilled nursing is available for severe cases of Whooping Cough and of the resulting Broncho-pneumonia have already been mentioned in the section on Measles.

DIPHTHERIA.

The incidence and mortality from this disease were high during 1923. There were 1,537 new cases reported, and 139 deaths were registered.

The progress of Diphtheria in Birmingham in recent years is shown in the following table :—

	Cases Notified.	Case-rate per 1,000 of Population.	Deaths.	Death-rate per 1,000.	Case Mortality per cent.
1890	283*	.69	123	.28	43
1891	205	.48	59	.14	29
1892	533	1.10	115	.24	22
1893	387	.79	98	.20	25
1894	406	.83	108	.22	27
1895	741	1.50	219	.44	30
1896	1,194	2.35	312	.61	26
1897	713	1.41	171	.34	24
1898	689	1.36	139	.27	20
1899	720	1.40	149	.29	21
1900	542	1.05	86	.17	16
1901	789†	1.04†	125†	.16†	16†
1902	1,118	1.44	189	.24	17
1903	1,176	1.52	176	.23	15
1904	902	1.15	167	.21	19
1905	972	1.23	136	.17	14
1906	1,165	1.46	138	.17	12
1907	1,459	1.81	159	.20	11
1908	1,229	1.49	168	.20	14
1909	1,136	1.38	167	.20	15
1910	1,063	1.28	112	.13	11
1911	1,134	1.35	112	.13	10
1912	807	.95	101	.12	13
1913	991	1.13	169	.19	17
1914	1,623	1.84	260	.30	16
1915	1,072	1.21	135	.15	13
1916	951	1.07	116	.13	12
1917	770	.86	112	.13	14
1918	881	1.02	160	.18	18
1919	970	1.05	126	.14	13
1920	1,755	1.93	201	.22	11
1921	1,652	1.80	120	.13	7
1922	1,285	1.39	89	.10	7
1923	1,537	1.65	139	.15	9

* Notification became compulsory on January 20th, 1890.

† The figures from 1901 onwards relate to Greater Birmingham.

Note.—In recent years the cases have been revised as far as possible to exclude errors in diagnosis.

It will be noted that the case-rate per 1,000 of the population was only exceeded in five of the preceding 33 years, and also that each of the last four years had a high incidence of Diphtheria. On the other hand the mortality from Diphtheria in 1923 was almost the lowest on record. Diphtheria as it occurs in Birmingham is a cold weather disease, its chief prevalence occurring between October and March, as is seen in the table below, where the percentage of cases in each four-week period is indicated.

DIPHTHERIA CASES IN FOUR-WEEKLY PERIODS.

	1919.	1920.	1921.	1922.	1923.	Total cases.	Percentage of total cases.
	47	135	194	127	155	658	9.2
	43	148	185	113	166	655	9.1
	43	135	192	100	109	579	8.1
	53	110	129	59	111	462	6.4
	47	119	116	105	93	480	6.7
	57	100	96	60	77	390	5.4
	63	125	121	76	84	469	6.5
	56	86	87	60	94	383	5.4
	64	94	85	64	144	451	6.3
	130	152	96	89	129	596	8.3
	115	188	121	116	119	659	9.2
	110	184	86	142	132	654	9.1
	115	179	144	174	124	736	10.3
Total	943	1,755	1,652	1,285	1,537	7,172	100.0

The distribution of the cases over the wards of the City is shown in the next table :—

DIPHTHERIA IN WARDS.

				Cases Notified.	Case-rate per 1,000.	Case Mortality per cent.	
Central Wards	St. Paul's	97	3.09	10	Average 7
	St. Mary's	...	...	107	3.17	5
	Duddeston and Nechells	...	...	80	1.77	10
	St. Bartholomew's	...	...	71	1.77	13
	St. Martin's and Deritend	...	...	50	1.11	2
	Market Hall	...	...	36	1.93	—
	Ladywood	...	...	65	2.14	9
Middle Ring...	Lozells	116	3.34	17	Average 10
	Aston	...	...	92	2.16	10
	Washwood Heath	...	...	84	2.20	11
	Saltley	...	...	57	1.83	11
	Small Heath	...	...	41	1.31	15
	Sparkbrook	...	...	49	1.33	12
	Balsall Heath	...	...	56	1.41	4
	Edgbaston	...	...	49	1.40	2
	Rotton Park	...	...	76	1.82	4
	All Saints'	...	...	53	1.21	11

				Cases Notified.	Case-rate per 1,000.		Case Mortality per cent.
Outer Ring ...	Soho	...	...	30	1.08		30
	Sandwell	...	...	22	1.11		18
	Handsworth	...	...	62	2.20		5
	Erdington North	...	...	22	1.12		9
	Erdington South	...	...	12	0.56		—
	Yardley	...	...	12	0.69		—
	Acock's Green	...	...	31	1.02	Average 1.05	3
	Sparkhill	...	...	18	0.69		11
	Moseley and King's Heath...			19	0.66		11
	Selly Oak	...	...	13	0.45		8
	King's Norton	...	...	15	0.63		7
	Northfield	...	...	17	1.88		24
	Harborne	...	...	26	1.57		8
							Average 10

It will be seen that last year the disease was more prevalent in the poorer wards than elsewhere.

The age incidence and mortality are shown below :—

Ages	Cases Notified.	Deaths Registered.	Case Mortality per cent.
Under 1 year	18	6	33
Between 1 and 2 years ...	72	17	24
Between 2 and 3 years ...	75	8	11
Between 3 and 4 years ...	150	20	13
Between 4 and 5 years ...	87	17	20
Between 5 and 10 years ...	526	42	8
Between 10 and 15 years ...	288	18	6
Between 15 and 20 years ...	125	5	4
20 years and over	196	6	3
Total ...	1,537	139	9

Hospital treatment was provided for 91 per cent. of the cases, while in the previous two years the percentages were 84 and 79. The mortality amongst hospital treated cases was 8.6 per cent., while that among home treated cases was 13.9 per cent.

Birmingham has undoubtedly far too many cases of Diphtheria, and the mortality, although a diminishing one, is far too high. Statements have in recent years been made in America that no child need ever have Diphtheria if its parents take steps to have it immunised by means of a recently discovered method. This is probably true, but as yet the method has not been attempted on a large scale in this country, probably because the vast majority of people hope that their children are going to escape or if attacked that they will be spared.

The process is simple in general plan, but requires more skill than can be expected of the general practitioner.

First, children at an early age are tested by means of an intradermal injection to see if they are susceptible to Diphtheria. In this way the young population is divided into two classes :—

- Those who are free from a liability to take Diphtheria, and
- Those who if exposed to infection would develop the disease.

It is obviously only necessary to protect the latter group, and this is done by the injection of a serum on several occasions. At the end of a period of months such a child is protected against Diphtheria, and remains protected for a considerable number of years. So far as Birmingham is concerned the protection has proved of great value to those who have to work as nurses or ward maids in the wards where Diphtheria cases are treated. (See page 74).

To carry out this work among the large number of children in Birmingham would require the services of a number of skilled doctors. At present it is unlikely that a population who refuse to have their children protected against Smallpox would take the trouble to attend on four or five occasions to get children protected against Diphtheria.

The work has not yet been in operation in America for a sufficient time to enable a statement to be made that Diphtheria immunisation by means of Toxin-anti-toxin has entirely prevented the prevalence of Diphtheria or reduced it to a considerable extent. Recently it has been reported that of 90,000 children in New York not protected as above 56 contracted Diphtheria, while of a similar number who had been protected (some not wholly) only 14 developed Diphtheria.

In connection with this disease 3,834 specimens were examined at the City Bacteriological Laboratory. These swabs were sent in either for the purpose of diagnosis or for establishing freedom from infection at the close of the illness. During the year 1034 vials of Diphtheria anti-toxin were issued to medical practitioners, each vial containing in concentrated form 8,000 units. This amount does not include the anti-toxin used in the City Hospital.

INFLUENZA.

Influenza caused 264 deaths during 1923. During the previous ten years the deaths were as follows :—

1913	...	...	...	...	...	112
1914	...	...	...	...	...	142
1915	...	...	...	...	...	146
1916	...	...	...	...	...	146
1917	...	...	...	...	...	98
1918	...	...	...	...	...	2,172
1919	...	...	...	...	...	1,062
1920	...	...	...	...	...	421
1921	...	...	...	...	...	134
1922	...	...	...	...	...	442

England suffered from great epidemics of Influenza in 1847-48 and in 1890-91 and in 1918-19. At intervals between these dates there were years of increased prevalence, but uniformly there are a large number of deaths every year from the disease. It may, therefore, be said that the infection is never absent.

DIARRHŒA AND ENTERITIS.

There were 261 deaths from Diarrhœa and Enteritis against an average of 496 in the previous ten years. In recent years the mortality from this cause has been greatly reduced. During the last eight years the deaths have never exceeded 500, while in 1911, 1906, and 1904 they numbered 1,390, 1,439, and 1,422 respectively.

Of the 261 deaths 181 were in infants under one year old, and 26 others were in children between one and two years.

Weather conditions have a marked effect on the mortality from Diarrhœa, and the following table shows the main meteorological figures side by side with the mortality statistics :—

	Deaths from Diarrhœa and Enteritis.	Death-rate per 1,000.	Highest Temp. of the Air.*	Days with Temp. of 75° Fahr. or over.*	Maximum Soil Temperature (4ft.).*	Amount of Rain in inches.*	Days with 0.10 or more of Rain.*
1914	... 767	0.87	82.6	8	55.3	7.00	42
1915	... 684	0.77	74.6	0	54.3	8.34	44
1916	... 489	0.55	82.1	14	54.8	5.42	36
1917	... 366	0.41	78.4	5	54.0	9.74	55
1918	... 445	0.51	81.3	13	55.9	9.83	54
1919	... 260	0.28	83.0	12	55.0	8.44	39
1920	... 309	0.34	73.0	0	53.0	7.59	53
1921	... 442	0.48	89.2	27	57.0	5.54	27
1922	... 224	0.24	71.5	0	52.8	13.45	55
1923	... 261	0.28	91.9	15	54.2	9.50	49

* In the third quarter of the year.

Taking the weather conditions into account it is satisfactory to find the deaths were not more numerous last year.

TUBERCULOSIS.

There was in 1923 an increase in the number of new cases of Tuberculosis notified with, however, no increase in the number of deaths.

NEW CASES OF TUBERCULOSIS NOTIFIED IN 1923.

Pulmonary Tuberculosis	...	...	...	...	...	1,785
Tubercular Meningitis	...	...	...	...	...	42
Tubercle of the Abdomen	...	...	...	...	...	82
Tubercle of the Spinal Column	...	...	...	...	...	41
Tubercle of the Joints	...	...	...	...	...	81
Disseminated Tuberculosis	...	...	...	...	...	22
Tubercle of the Glands and other parts	...	...	...	...	...	113

CASES AND DEATHS FROM TUBERCULOSIS (ALL FORMS).

		Cases Notified.		Deaths.		Death-rate in Birmingham.		Death-rate in England & Wales.
1913	...	5,196	...	1,341	...	1.53	...	1.35
1914	...	3,815	...	1,293	...	1.47	...	1.36
1915	...	3,518	...	1,377	...	1.55	...	1.51
1916	...	3,830	...	1,324	...	1.48	...	1.53
1917	...	3,543	...	1,405	...	1.56	...	1.62
1918	...	3,254	...	1,385	...	1.60	...	1.69
1919	...	3,116	...	1,188	...	1.28	...	1.26
1920	...	2,974	...	1,001	...	1.10	...	1.13
1921	...	2,247	...	1,035	...	1.13	...	1.13
1922	...	1,961	...	1,049	...	1.13	...	1.12
1923	...	2,166	...	1,006	...	1.08	...	—

PULMONARY TUBERCULOSIS.

		Cases Notified.		Deaths.		Death-rate in Birmingham.		Death-rate in England & Wales.
1903	...	—	...	992	...	1.28	...	1.21
1904	...	—	...	1,018	...	1.30	...	1.24
1905	...	—	...	994	...	1.26	...	1.14
1906	...	—	...	908	...	1.14	...	1.16
1907	...	—	...	898	...	1.11	...	1.15
1908	...	—	...	1,021	...	1.24	...	1.12
1909	...	—	...	1,008	...	1.22	...	1.09
1910	...	—	...	898	...	1.08	...	1.01
1911	...	—	...	958	...	1.14	...	1.08
1912	...	4,394	...	1,088	...	1.28	...	1.04
1913	...	4,229	...	1,041	...	1.19	...	1.01
1914	...	3,317	...	1,059	...	1.20	...	1.04
1915	...	3,027	...	1,141	...	1.28	...	1.16
1916	...	3,388	...	1,107	...	1.24	...	1.18
1917	...	3,074	...	1,169	...	1.30	...	1.25
1918	...	2,905	...	1,171	...	1.35	...	1.34
1919	...	2,704	...	1,019	...	1.10	...	1.00
1920	...	2,609	...	843	...	.93	...	.89
1921	...	1,969	...	890	...	.97	...	.88
1922	...	1,669	...	899	...	.97	...	.89
1923	...	1,785	...	860	...	.92	...	—

The Incidence-rate and Death-rate from Pulmonary Tuberculosis in males and females are shown below :—

			Incidence-rate		Death-rate.	
			Males.	Females.	Males.	Females.
1918	...	...	4.24	2.67	1.91	0.93
1919	...	...	3.72	2.23	1.38	0.86
1920	...	...	3.56	2.26	1.20	0.69
1921	...	...	2.49	1.85	1.27	0.71
1922	...	...	2.08	1.55	1.27	0.71
1923	...	...	2.21	1.65	1.17	0.70

DISTRIBUTION OF PULMONARY TUBERCULOSIS.

						Case-rate per 1,000.	
Central Wards ...	{	St. Paul's	2.13	Average 1923 2.76 ,, 1918-22 3.84
		St. Mary's	...	...	...	3.14
		Duddeston and Nechells	...	...	...	3.20
		St. Bartholomew's	...	...	...	2.51
		St. Martin's and Deritend	...	...	...	3.88
		Market Hall	...	...	...	2.46
		Ladywood	...	...	...	1.97
Middle Ring ...	{	Lozells	1.90	Average 1923 1.81 ,, 1918-22 2.43
		Aston	...	...	...	1.95
		Washwood Heath	...	...	...	1.79
		Saltley	...	...	...	1.41
		Small Heath	...	...	...	1.69
		Sparkbrook	...	...	...	1.88
		Balsall Heath	...	...	...	2.22
		Edgbaston	...	...	...	1.40
		Rotton Park	...	...	...	2.28
		All Saints'	...	...	...	1.60
Outer Ring ...	{	Soho	1.40	Average 1923 1.25 ,, 1918-22 1.90
		Sandwell	...	...	...	0.61
		Handsworth	...	...	...	1.31
		Erdington North	...	...	...	1.52
		Erdington South	...	...	...	1.39
		Yardley	...	...	...	1.39
		Acoc's Green	...	...	...	1.35
		Sparkhili	...	...	...	1.57
		Moseley and King's Heath	...	...	...	1.31
		Selly Oak	...	...	...	1.04
		King's Norton	...	...	...	1.09
		Northfield	...	...	...	1.22
		Harborne	...	...	...	1.08

OTHER FORMS OF TUBERCULOSIS.

		Cases Notified.	No. of Deaths.	Death-rate in Birmingham.	Death-rate in England & Wales.
1903	...	—	370	.48	.54
1904	...	—	351	.45	.54
1905	...	—	322	.41	.49
1906	...	—	295	.37	.50
1907	...	—	343	.43	.47
1908	...	—	287	.35	.47
1909	...	—	248	.30	.45
1910	...	—	270	.32	.42
1911	...	—	272	.32	.38
1912	...	—	204	.24	.33
1913	...	967	300	.34	.34
1914	...	498	234	.27	.32
1915	...	491	236	.27	.35
1916	...	442	217	.24	.35
1917	...	469	236	.26	.37
1918	...	349	214	.25	.35
1919	...	412	169	.18	.26
1920	...	365	158	.17	.24
1921	...	278	145	.16	.24
1922	...	292	150	.16	.23
1923	...	381	146	.16	—

VARIETIES OF NON-PULMONARY TUBERCULOSIS.

	Cases notified in 1923.	Deaths not notified as cases.	Total Deaths.
Tubercular Meningitis	42	25	67
Abdominal Tuberculosis	82	11	29
Tuberculosis of Spine	41	2	7
Tuberculosis of Joints	81	1	3
Tuberculosis of other organs, mostly glands ...	113	6	14
Disseminated Tuberculosis	22	9	26

The increase in the cases of Non-Pulmonary Tuberculosis is largely due to the fact that during the year arrangements were made for subsidising suitable hospitals where these cases are received for treatment. The subsidy was paid only in the case of patients notified on admission and discharge.

COMPARATIVE INCIDENCE AND MORTALITY FROM TUBERCULOSIS IN 1922.
(Registrar-General's Figures.)

Towns.	Case-rate per 1,000, all forms	Mortality-rate per 1,000.		
		All forms.	Pulmonary only.	Non-pulmonary.
London	2.41	1.28	1.07	.21
*Glasgow	2.78	1.44	1.07	.37
Birmingham	2.11	1.11	.93	.18
Liverpool	3.01	1.65	1.32	.33
Manchester	2.78	1.60	1.27	.33
Sheffield	3.02	1.21	1.00	.21
Leeds	2.13	1.42	1.13	.29
*Edinburgh	2.95	1.25	.86	.39
Bristol	2.79	1.32	1.06	.26

* From Annual Reports of Medical Officers of Health.

PREVENTION OF TUBERCULOSIS.

The fact that unemployment is rife, and that the housing conditions under which a considerable number of persons live are extremely bad and unwholesome, must militate against the efforts put forward to prevent Tuberculosis. These two debilitating conditions taken together mean in many cases poor feeding and overcrowding, two of the evils which have always to be kept in mind in dealing with the prevention of Tuberculosis. On the other hand, as was pointed out in the report for 1922, the relief given to distressed persons has been good, and has doubtless prevented many more people getting into such a condition of health as to render them liable to illness from Tuberculosis.

There are two main objects to be kept in view in preventing Tuberculosis.

- (a) Prevention of massive doses of infection.
- (b) Increasing the resistance of the people.

In regard to (a) there is much that can be done—

(1) Nearly all patients are taken into a sanatorium or hospital and taught how to prevent their infection spreading to others. Some patients are retained in hospital because they are very infectious and have no means of isolation in their homes.

(2) In other cases beds are issued free or on a cheap hire-purchase system so as to secure the separation of the infectious sick from the healthy in their bedrooms.

(3) Frequent visits are paid to the homes of the infectious sick to see that they are following the instructions given to avoid spreading infection.

As regards (b) every advance which is made in the direction of educating the people to live under healthy conditions has its influence in preventing tuberculosis. Unwholesome living conditions or work conditions, or inadequate or badly selected food, or vicious living, or neglect—all these are factors, the removal of which will lessen in time the incidence of Tuberculosis.

For the treatment or isolation of the cases of Pulmonary Tuberculosis there is sanatorium or hospital accommodation for 670 patients at Yardley Road Sanatorium, West Heath Sanatorium, Romsley Hill Sanatorium and Salterley Grange Sanatorium. In addition, there are 140 beds for children suffering from other forms of Tuberculosis at "The Woodlands" and "The Forelands," with an indefinite number of beds available at the other hospitals, probably amounting to 10 or 15 at any one time.

Fifteen trained nurses are employed in visiting cases of Tuberculosis in their homes under a scheme whereby every case is visited an appropriate number of times during the year. These visits during 1923 were as follows:—

New cases received	2,207
Primary visits paid to civilians	1,952
" " ex-soldiers	234
Periodic re-visits paid to civilians	23,239
" " ex-soldiers	6,307
Special re-visits	13,690
Useless calls	2,917
Total calls	50,546
Patients recommended for a shelter	43
" " extra nourishment	494
" " clothing	53
" " additional bed	216
Nuisances Reported to Sanitary Inspectors	651
Houses disinfected	1,634

During the year under review the National Council for the Prevention of Tuberculosis held its annual meeting from July 12 to July 14 inclusive in the City. Many useful papers were heard and discussed. Sir Robert Philip, who has done so much in the campaign against Tuberculosis, gave a public lecture on the present position of the Tuberculosis problem. This address was afterwards broadcasted. The papers, discussions and addresses are printed in the proceedings of the Conference.

TREATMENT OF TUBERCULOSIS.

The next statement shows the number of persons examined by the Medical Staff at Broad Street Centre:—

TUBERCULOSIS PATIENTS EXAMINED AT BROAD STREET CENTRE.

	New Patients.	Contacts or Suspects.	Old Patients Re-examined.
Completed Examinations	1,389	1,104	6,044
No. recommended for Sanatorium	602	241	744
" " Observation	159	156	68
" " Dispensary	50	26	1,342
" " Domiciliary	89	48	1,026
No treatment required at present	489	633	2,864
Incomplete Examinations	517	938	567
Total Examinations	1,906	2,042	6,611

X-Ray examinations were made in 2,618 cases.

The number of patients sent to the different Sanatoria is given in the statement below:—

PATIENTS TREATED AT SANATORIA.

	Yardley Road.	Salterley Grange.	Romsley Hill.	West Heath.	Total.
In sanatorium at beginning of year	269	47	88	69	473
Admitted during year	1,070	190	314	287	1,831
Discharged	861	181	304	201	1,547
Died	146	—	16	72	234
Remaining at end of year	302	56	82	83	523

The number of patients who attended at Broad Street Centre for out-patient treatment (in most cases after a previous stay at a sanatorium) was as follows:—

TREATMENT AT BROAD STREET DISPENSARY.

New patients attending for treatment	477
Total attendances of old and new patients	17,755

THE ANTI-TUBERCULOSIS CENTRE.

(REPORT BY DR. G. B. DIXON, CHIEF TUBERCULOSIS OFFICER).

The Anti-Tuberculosis Centre is open daily for five days during the week, and on Saturday for half a day. There are four evening sessions each week. New patients are examined and old patients are re-examined by appointment during the morning and afternoon; treatment is given during the evenings to those who are working, and in the afternoon to children and those women and men who are not working. Those patients who are unable to attend for examination are visited and examined by members of the medical staff at their own homes. Consultations are held at the dispensary with the doctors of patients who desire it, and a number of consultations are also held between doctors and the Chief Tuberculosis Officer at the patients' own homes. On return from the sanatoria, patients are again seen at the Centre where many continue to attend as out-patients; some, however, return to their own doctors. The patients attending the Centre are examined from time to time, and those old patients who have discontinued regular attendance are re-examined after varying intervals of time.

ATTENDANCES AND EXAMINATIONS OF PATIENTS.

During the year 1923 the total number of attendances, both for the purpose of diagnosis and treatment, was 31,035, the total attendances for treatment alone were 17,858; the total number of examinations was 10,559, and in addition there were 2,618 X-ray examinations. As compared with last year there was a drop in the total attendances for the purpose of treatment, the number of examinations was about the same, and there was an increase in the number of X-ray examinations.

During the year we examined 1,072 newly notified cases of pulmonary tuberculosis out of the 1,785 persons who were notified to the Medical Officer of Health as suffering from this disease; this figure indicates that 60 per cent. of all notified cases of pulmonary tuberculosis in the City were examined at the Centre during the year. In addition, 2,874 return cases, *i.e.*, those who had been treated in previous years, were re-examined, as well as 990 "suspect" cases and 544 "contact" cases; we also examined during the year 1,650 patients who had completed a course of treatment. These figures show that the total number of patients examined was 7,130, and they received 10,559 examinations.

TREATMENT RECOMMENDED.

In the two tables below, the variety of treatment recommended for the different categories of adults and children are shown, and in the two later tables the same patients are classified according to the stage of their disease. In these tables the last two items in each, deal with those patients who required treatment for diseases other than pulmonary tuberculosis, or for whom no treatment was considered necessary.

ADULT PATIENTS.

	Newly notified cases.	Return cases.	"Suspect" cases.	"Contact" cases.	Total.
Sanatorium observation	89	14	132	9	244
Sanatorium	463	442	162	13	1,080
Domiciliary	84	497	25	—	606
Dispensary	19	122	9	2	152
Home Treatment for disease other than P.T.	2	109	4	1	116
Hospital Treatment for disease other than P.T.	1	1	—	—	2
No Treatment required	230	1,256	371	145	2,002
	888	2,441	703	170	4,202

CHILDREN.

	Newly notified cases.	Return cases.	"Suspect" cases.	"Contact" cases.	Total.
Sanatorium observation	43	7	57	41	148
Sanatorium	35	60	19	22	136
Domiciliary	15	11	4	4	34
Dispensary	10	61	7	7	85
Home Treatment for disease other than P.T.	1	6	1	—	8
Hospital Treatment for disease other than P.T.	—	1	—	—	1
No Treatment required	80	287	199	300	866
	184	433	287	374	1,278

CLASSIFICATION OF PATIENTS ACCORDING TO STAGE OF DISEASE.

ADULTS.

	Newly notified cases.	Return cases.	Suspects and contacts.	Total.
Stage I.	72	605	70	747
Stage II.	148	1,136	79	1,363
Stage III.	375	546	105	1,026
No active signs of Tuberculosis	282	148	610	1,040
T.B. other than pulmonary	11	6	9	26
				4,202

CHILDREN.

	Newly notified cases.	Return cases.	Suspects and contacts.	Total.
Stage I.	13	164	26	203
Stage II.	24	121	35	180
Stage III.	33	54	15	102
No active signs of Tuberculosis	99	71	573	743
T.B. other than pulmonary	15	23	12	50
				1,278

WORKING CAPACITY WHEN FIRST EXAMINED.

In the following tables the patients referred to us for treatment are again sub-divided into adults and child patients, and the working capacity of the different types of patient in each sub-division is shown. It is interesting to note that among the adults 35.3 per cent. were sent to us whilst their working capacity was still unimpaired, and only 11.4 per cent. came to us when totally incapacitated. In the case of the children this point is more emphasised; 70.5 per cent. had an unimpaired working capacity and 3.9 per cent. were totally incapacitated, the working capacity indicated here being the ability or otherwise to attend school regularly.

ADULTS.

	Newly notified cases.	Old cases.	Suspects and contacts.	Total.
Unimpaired	239	706	541	1,486
Impaired	427	1,539	271	2,237
Totally incapacitated	222	196	61	479
				4,202

CHILDREN.

	Newly notified cases.	Old cases.	Suspects and contacts.	Total.
Unimpaired	101	255	545	901
Impaired	59	162	105	326
Totally incapacitated	24	16	11	51
				1,278

FAMILY HISTORY.

A survey of the family and social history of the 5,180 patients submitted to us for examination and treatment during the year shows that there was no history of existing tuberculosis or knowledge of relatives dying of tuberculosis in connection with 2,950 or 53.8 per cent. In 2,530 or 46.1 per cent. there was a history of some near relative or intimate friend either being affected with tuberculosis or having succumbed to it. In 331 instances or 6 per cent. the relative affected was the father, and in 184 or 3.3 per cent. the relative affected was the mother, and in 524 instances or 9.6 per cent. the brother or sister was affected. In 795 instances two or more relatives were known to have suffered from tuberculosis.

DENTAL TREATMENT.

The services of a part-time dental surgeon are utilised at the Centre for the necessary treatment of our patients. The treatment is conservative in type, and consists mainly of extractions, fillings and scalings. There is no fund to assist in the provision of artificial dentures. Those patients who wish to provide their own can do so under conditions advantageous to themselves by arrangement with the dentist. The condition of the teeth and gums of most of our patients is carefully noted, and in the table below is briefly summarised the dental condition of patients seen during the year so far as dental caries, masticatory power, and the state of the gums was concerned. The dental surgeon informs me that there were 877 extractions for which local anæsthesia was administered on 209 occasions, and that the general anæsthetic was administered on 10 occasions. There were 21 fillings and 87 scalings, and dentures were supplied in 45 instances.

CONDITION OF TEETH AND GUMS.

Number of Teeth with infected pulp chambers.			Masticatory power in Molars and Bicuspedes.			State of Gums.		
None	1 to 4	More than 4	6 or more	Less than 6	None	Healthy	Gingivitis	Pyorrhœa
1,367	3,150	594	3,123	1,452	540	3,299	1,068	750

CHILDREN.				Other than Pulmonary.	
		Stage I.	Stage II.	Stage III.	Total.
Unimpaired working capacity becoming impaired ...	—	—	—	—	—
Unimpaired becoming totally incapacitated ...	—	—	—	—	—
Unimpaired capacity persisting ...	7	3	1	2	13
Impaired becoming unimpaired ...	45	33	10	11	99
Impaired becoming totally incapacitated ...	—	—	3	—	3
Impaired capacity persisting ...	23	27	19	7	76
Totally incapacitated becoming impaired ...	1	3	6	1	11
Totally incapacitated becoming unimpaired ...	6	5	2	—	13
Totally incapacitated persisting ...	—	1	4	2	7
					222

CONDITION OF DISEASE ON COMPLETION OF TREATMENT.

In the following tables the same differentiation of patients into adults and children and stages of disease has been observed, and shows the numbers according to these different classifications in which the disease has become inactive and greatly improved and stationary or progressive:—

ADULTS.							Disease inactive and greatly improved.	Disease improved.	Disease stationary or progressive.
Stage I.	...	...	...	...	...	...	232	31	17
Stage II.	...	...	...	...	...	...	240	204	211
Stage III.	...	...	...	...	...	...	90	211	190
T.B. other than pulmonary	...	...	...	...	...	...	3	4	2
							565	450	420

CHILDREN.							Disease inactive and greatly improved.	Disease improved.	Disease stationary or progressive.
Stage I.	...	...	...	...	...	...	78	2	2
Stage II.	...	...	...	...	...	...	54	12	6
Stage III.	...	...	...	...	...	...	29	6	10
T.B. other than pulmonary	...	...	...	...	...	...	18	2	3
							179	22	21

The terms "disease inactive" and "greatly improved" indicate that there was an entire absence of constitutional symptoms; expectoration if present contained no tubercle bacilli, and was but slight in amount; physical signs did not indicate activity of the disease. "Improved" indicates that constitutional symptoms were greatly lessened or entirely absent, physical signs improved, cough and expectoration present, tubercle bacilli may be present in sputum. "Stationary or progressive" indicates that all the physical signs and symptoms were either unaltered, unabated or increased.

AFTER CARE.

RESULTS OF INVESTIGATION INTO THE PRESENT CONDITION OF THE PATIENTS TREATED IN THE PAST.

In the following tables are set out, as briefly as possible, the main points in connection with an investigation undertaken to ascertain the condition of our past patients who received treatment at the Centre between the years 1913 and 1918 inclusive.

Amongst the patients treated during the year 1913 at the Centre, 612 or 37.2 per cent. are still working. The mortality is very much higher amongst those whose sputum contained tubercle bacilli.

RESULTS OF AN INQUIRY INTO PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS WHOSE SPUTUM CONTAINED TUBERCLE BACILLI.

Year.	No. of patients treated.	Now working regularly.	Working irregularly.	Totally incapacitated.	Known to have left the City.	Lost all trace.	Known to have died.
1913 ...	505	22.3%	8.3%	.7%	2.9%	31.8%	34.4%
1914 ..	573	22.6%	11.5%	1.2%	6.9%	16.5%	41.0%
1915 ...	308	17.5%	10.3%	.9%	6.1%	23.3%	41.8%
1916 ...	207	21.7%	13.0%	.9%	7.2%	12.5%	44.4%
1917 ...	212	29.2%	14.1%	2.8%	7.0%	13.6%	33.0%
1918 ...	191	25.1%	16.7%	3.1%	9.9%	10.9%	34.0%
1919 ...	219	26.4%	25.1%	4.1%	4.5%	6.3%	33.3%

RESULTS OF AN INQUIRY INTO PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS WHOSE SPUTUM DID NOT CONTAIN TUBERCLE BACILLI.

Year.	No. of patients treated.	Now working regularly.	Working irregularly.	Totally incapacitated.	Known to have left the City.	Lost all trace.	Known to have died.
1913 ...	1140	32.4%	7.6%	.3%	4.9%	41.0%	13.5%
1914 ..	895	43.4%	9.9%	.8%	6.1%	28.3%	11.1%
1915 ...	1222	33.2%	8.5%	.4%	5.4%	38.4%	13.8%
1916 ...	996	49.1%	7.6%	1.1%	7.7%	25.7%	8.5%
1917 ...	812	52.4%	10.0%	.6%	8.0%	22.2%	6.5%
1918 ...	821	47.0%	16.0%	.7%	8.6%	18.5%	9.0%
1919 ...	773	58.9%	18.1%	.5%	4.9%	10.3%	7.1%

SUMMARY OF REPORT.

1. Compared with the previous year there was a fall in the number of attendances for the purpose of treatment but an increase in the number of patients examined.
2. Sixty per cent. of the total number of those notified in the city as suffering from pulmonary tuberculosis, during the year, were examined at the Centre.
3. No less than 837 persons were examined at their own homes.
4. The number of contacts and suspects examined during the year was 1,534, as compared with 1,072 newly notified patients.
5. Amongst the adult patients notified during the year and examined at the Centre 35 per cent. had but a slightly impaired capacity for work, 11 per cent. were totally incapacitated from work.
6. Amongst the adult patients suffering from tuberculosis 21.4 per cent. presented tubercle bacilli in their sputum, whilst only 5.3 per cent. of the children referred to showed tubercle bacilli in their sputum.

SANATORIA FOR TUBERCULOSIS.

(REPORT BY DR. G. B. DIXON, CHIEF TUBERCULOSIS OFFICER.)

The Birmingham Public Health Committee has 610 beds available for the treatment and prevention of pulmonary tuberculosis, exclusive of those in the Training Colony at West Heath. These beds are distributed in four different Sanatoria, namely, Yardley Road Sanatorium, West Heath Sanatorium, Salterley Grange Sanatorium, Cheltenham, and Romsley Hill Sanatorium, Halesowen. The three former are the property of the City, but in the latter, which belongs to the Birmingham Hospital Saturday Fund, 93 beds are rented. The Yardley Road Sanatorium is situated in a suburban part of the city, about $3\frac{1}{2}$ miles from its centre, and has accommodation for 325 patients. The beds are available for male and female adults, and for children. There are 154 beds for male adults, 10 of which are reserved for the admission of patients for observation purposes, and the remainder are utilised for the treatment of those in intermediate and advanced stages of tuberculosis. There are 52 beds provided for female adults, which include 8 beds reserved for observation purposes. The female patients admitted are those in the early and intermediate stages of tuberculosis. There are 119 beds for the treatment of children, and included in these are 15 beds available for the purpose of observation. Children in all stages of tuberculosis are admitted.

The West Heath Sanatorium is situated about 6 miles from the centre of the city; it contains 184 beds, 100 of which are set apart for the treatment of female adult patients suffering from advanced tuberculosis, 24 beds are available in the Red Cross Pavilion for ex-service men, a limited number of which are allocated to this city, and there is in addition a Training Colony with 60 places for the concurrent training and treatment of ex-service men, the patients being admitted from any part of the country. The courses of vocational training undertaken are furniture repairing, tin-smithing, art metal work, and house repairing.

The Salterley Grange Sanatorium, with 68 beds, is situated in the Cotswold Hills, about $3\frac{1}{2}$ miles from Cheltenham, and has accommodation for 36 males and 32 females. The patients selected are all of adult age, and are the most promising from a medical standpoint of all our patients, the majority suffering from tuberculosis in an early stage.

Romsley Hill Sanatorium is the property of the Birmingham Hospital Saturday Fund, and is situated in the Clent Hills, 11 miles from the centre of the city. The Birmingham Public Health Committee rents 93 beds for the admission of their patients, 63 for male and 30 for female adults. Those in all stages of the disease are admitted.

Admission to these different Sanatoria is arranged by the staff of Tuberculosis Officers, after examination of the patients at the Municipal Anti-Tuberculosis Centre, 44a, Broad Street. The treatment given to patients in the Sanatoria is on similar lines, and includes hygienic and dietetic treatment, graduated rest, exercise and occupation, the employment of appropriate drugs when indicated, or specific treatment by means of the various tuberculins and vaccines, etc. Heliotherapy, and artificial pneumothorax are undertaken in suitable cases.

TOTAL NUMBERS TREATED IN THE SANATORIA AND DURATION OF STAY.

During the year 1923 there were 1710 patients discharged from all the Sanatoria. Of this number 143 were male children, 110 were female children, 876 were adult males, and 581 were adult females.

The average durations of stay recorded in days for male, female and child patients in the Sanatoria were as follows:—

Males.	Females.	Children.
119.1	121.7	136.2

OBSERVATION PATIENTS.

The beds reserved for the purpose of observation are all at the Yardley Road Sanatorium, and vary in number from time to time, the average being about 30.

Observation patients are those who, after careful and repeated examinations at the Centre, are found to be indefinite, either as to the absence or presence of tuberculosis, or as to its activity or otherwise when present, and are usually admitted for a period varying from two to four weeks. Of the 1,710 treated in all the Sanatoria, 311 or 18 per cent. were admitted primarily to Yardley Road Sanatorium for the purpose of observation. The medical findings after varying periods of observation in connection with these patients are set out in the following table:—

						Positive diagnosis.	Negative diagnosis.	Total.
Adult Males	...	...	...	...	...	38	54	92
Adult Females	...	...	...	...	...	40	47	87
Children	...	...	...	...	...	49	83	132
						127=40.8 per cent.	184=59.1 per cent.	311

TREATMENT CARRIED OUT WHILST IN SANATORIA.

The majority of the patients treated in the Sanatoria during the year accepted the treatment advised by the medical officers. In 907 instances, extensions of the treatment primarily advised were accepted. There were 77 patients who left sanatoria against medical advice, and 13 were dismissed. Deaths in Sanatoria numbered 224, the great majority of which occurred amongst patients in the hospital beds provided for those with advanced and acute disease.

	Remaining full time recommended.	Extension of time accepted.	Left against medical advice.	Left before time with M.O.'s consent.	Dismissed.	Died.
Adult Males ...	239	419	25	39	11	143
Adult Females ...	124	305	45	40	-	67

PULMONARY CONDITION AFTER TREATMENT.

In the following table is shown the condition of the patients' pulmonary disease on discharge. A description of the different terms is given in the report of the work in connection with the Anti-Tuberculosis Centre.

	Disease inactive.	Disease improved.	Disease stationary.	Disease progressing.	Dead.	No active signs.	Obs. left before diagnosis made.
Adult Males ...	96	429	35	117	143	54	—
Adult Females ...	84	260	15	108	67	47	—
Children ...	79	69	1	5	14	83	2

ILLNESSES PREVIOUS TO ADMISSION.

In 173 or 11.8 per cent. instances, adult patients gave a history of having suffered from pleurisy at periods varying from one to twelve years prior to their examination by us. In 198 or 13.5 per cent. of the adult patients there was a history of pneumonia having occurred from one to twelve years previously. Large numbers of our patients attributed the onset of their tuberculosis to an attack of influenza, and in the case of many of our child patients measles appear frequently as a probable predisposing cause of tuberculosis.

GAIN OR LOSS IN WEIGHT.

Amongst a total of 1,710 patients discharged from the sanatoria, many of whom were advanced hospital cases, having been admitted as a measure of prophylaxis, 144 or 8.4 per cent. remained stationary, and 1,049 or 61.3 gained weight in amounts varying from one to twenty-five pounds.

WORKING CAPACITY.

The working capacity of patients is shown in the following table:—

	Males.	Females.	Children.	Total.
Unimpaired capacity for work becoming impaired ...	—	1	—	1
Unimpaired capacity persisting ...	2	4	7	13
Impaired capacity for work becoming unimpaired ...	50	47	64	161
Impaired capacity becoming totally incapacitated ...	58	39	2	99
Impaired capacity persisting ...	468	235	71	774
Total incapacity becoming impaired ...	90	51	13	154
Total incapacity becoming unimpaired ...	1	3	1	5
Total incapacity persisting ...	153	154	12	319
No active signs ...	54	47	83	184
				<hr/> 1,710 <hr/>

SUMMARY.

The average duration of patients' stay for all the Sanatoria, was 119.1 days for males, 121.7 days for females, and 136.2 days for children.

Of the patients discharged from all the Sanatoria during the year no less than 18 per cent. had passed through the observation beds at Yardley Road Sanatorium. This proves the necessity for beds for observation purposes, and is some measure of the care which is taken in arriving at a correct diagnosis. In only a limited percentage of all cases is it possible to arrive at a correct diagnosis of pulmonary tuberculosis in the consulting room, after one or two examinations. The provision of an adequate number of observation beds allows of an accurate diagnosis being made in a larger number of what would otherwise remain as doubtful cases.

The largest numbers of our patients in any hemi-decade, were those drawn from the age period 20 to 25 years.

Over 44 per cent. of the patients discharged were in Stage III, 30 per cent. were in Stage II, and 12.5 per cent. were in Stage I.

There were 55.2 per cent. of our total of discharged patients who presented tubercle bacilli in their sputum whilst in the sanatoria. The number who showed a bacillary loss, decided after three examinations, was 14.8 per cent.

Over 61 per cent. of all the patients discharged from Sanatoria gained weight in amounts varying from one to twenty-five pounds. Less than 9 per cent. remained stationary.

A larger number of our patients are being treated by means of the production of an artificial pneumothorax than has been the case for some years past. The treatment if it is to be satisfactorily carried out, makes a large demand upon the time of the medical staff.

The classification used throughout the reports is that of Turban-Gerhardt, which states that:—

STAGE I—Comprises those with disease of slight severity, limited to small areas on either side, which in the case of infection of both apices does not extend below the spine of the scapula or the clavicle, or in the case of affection of the apex of one lung does not extend below the second rib in front.

STAGE II—Comprises those with disease of slight severity more extensive than Stage I, but affecting at most the whole of one lobe, or severe disease extending at most to the half of one lobe.

STAGE III—All cases of greater severity than Group II, and all those with considerable cavities.

STAGE IV—Includes those cases where no disease can be found, or where the lesion is definitely proved to be obsolete.

TUBERCULOSIS DUE TO THE MILK SUPPLY.

Dr. Cobbett has estimated for the Royal Commission on Tuberculosis that the number of deaths caused by milk tubercle infection in England was approximately 3,000 per annum.

Almost more important is the enormous amount of invalidism and crippling which results from infected milk.

For the last Royal Commission on Tuberculosis careful examination was made into the origin of the infection in the cases where material could be obtained after death or after operation; these together with others since obtained have been collected by Dr. Griffiths and are as follows:—

Seat of the disease.	Number of patients from whom material was examined.		Percentage due to Bovine Tubercle Bacilli.	
Cervical glands ...	116	54 %	Children under 5 years ... 87% „ 5 to 10 years ... 61% „ 10 to 16 years ... 37% Over 16 years ... 25%	
Bone and joint tuberculosis ...	476	18.3 %	Children under 5 years ... 28% „ 5 to 10 years ... 23% „ 10 to 16 years ... 9% Over 16 years ... 6%	
Lupus ...	126	50.8 %	Children under 5 years ... 69% „ 5 to 10 years ... 42% „ 10 to 16 years ... 60% Over 16 years ... 17% Under 5 years ... 58%	
Scrofuloderma ...	52	38 %		
Genito-urinary ...	17	17 %		
Tubercular meningitis ...	12	16.6 %		
Pulmonary tuberculosis ...	229	1.31 %		
Primary abdominal tuberculosis	29	79 %		

The obvious conclusion from the above is that a very considerable proportion of Non-Pulmonary Tuberculosis is due to infection through the drinking of raw-milk infected with living Tubercle Bacilli.

It is equally obvious that this source of damage to health and of death can be removed and should be dealt with vigorously. There are two methods of freeing milk from tuberculosis—one is by freeing the cows from tubercle infection, and the other is by so treating the milk as to make the tubercle bacilli which it contains innocuous.

The milk supply of Birmingham is infected as it is in other districts. The following table shows the results of samples taken each year from milk churns and from individual cows for each year since these tests were instituted—the general result is that 8.7 per cent. of the 2,052 churns of milk were found to contain living tubercle bacilli.

MILK SAMPLES.

Year.	FROM MIXED MILK.			FROM INDIVIDUAL COWS.			TOTAL No. OF	
	No. of Samples.	No. Tubercular. per cent.		No. of Samples.	No. Tubercular.		Samples taken.	Results Tubercular.
1907	141	9 = 6.4	...	70	7	...	211	16
1908	54	7 = 13.0	...	48	3	...	102	10
1909	111	8 = 7.2	...	107	7	...	218	15
1910	228	17 = 7.5	...	115	18	...	343	35
1911	67	8 = 11.9	...	57	4	...	124	12
1912	138	27 = 19.6	...	146	12	...	284	39
1913	80	6 = 7.5	...	91	7	...	171	13
1914	94	10 = 10.6	...	69	11	...	163	21
1915	89	7 = 7.9	...	41	6	...	130	13
1916	25	3 = 12.0	...	46	9	...	71	12
1917	74	13 = 17.6	...	44	12	...	118	25
1918	56	3 = 5.4	...	27	6	...	83	9
1919	37	2 = 5.4	...	20	4	...	57	6
1920	83	8 = 9.6	...	21	2	...	104	10
1921	200	12 = 6.0	...	47	8	...	247	20
1922	233	11 = 4.7	...	31	9	...	264	20
1923	342	28 = 8.2	...	94	29	...	436	57*
	2,052	179 = 8.7		1,074	154		3126	333*

* Exclusive of 24 samples where the examination could not be completed.

It is possible to free a herd of milk cows of this tubercular infection, and the cost of doing this is comparatively small if the necessary accommodation for separating the animals can be obtained at the farm. But the process requires the intelligent co-operation of the farmer for several years whilst the herd is being freed. If the necessary co-operation is not forthcoming re-infection is liable to occur with attendant disappointment, extra expense and prolongation of the time. Milk from a herd of cows free from tuberculosis ought to obtain a slightly higher price. Unfortunately the general public do not appreciate the large provision being made in Birmingham and do not, with a few exceptions, pay a higher price for a better article. Such tubercle-free milk if bottled with care at the farm is now known as "Grade A" tubercle-free milk. There is only one dealer in Birmingham from whom such milk can be obtained.

The following is the report of the Veterinary Superintendent in regard to his work of freeing herds in the Birmingham District :—

TUBERCULOSIS AND THE MILK SUPPLY.

(REPORT BY MR. BRENNAN DE VINE, F.R.C.V.S., VETERINARY SUPERINTENDENT.)

The precautions to reduce the amount of tubercle infection in the milk sold in the city have been continued on similar lines as in previous years, namely :—

- (a) The detection of infected milk;
- (b) The eradication of tuberculosis from dairy herds supplying milk to Birmingham.
- (a) *The detection of infected milk.* In addition to samples of milk taken from city dairies and outside farms, mixed samples of milk arriving in the city from outside dairies and other sources have been taken at Railway Stations and from milk arriving by lorry or float.

The following samples were collected from cows in city dairies :—

	Infected.	Free.	Total.
Mixed samples	4	31	35
Individual samples	5	12	17

As a result of 4 of the 35 mixed samples collected being found to be affected, individual samples were collected from suspicious cows, 5 of which proved on examination to be affected. The offending cows have all been slaughtered.

The following samples were taken at Railway Stations, Depots, etc., of milk arriving in the city from outside sources :—

	Free.	Infected.	Total.
Number of mixed samples collected	239	19	258

In connection with the 19 infected samples, each of the farms from which the milk came was visited, and in all 508 cows were examined, and further samples taken at the farms as follows :—

	Infected.	Free.	Total.
Mixed	5	32	37
Individual	19	49	68

21 cows affected with tuberculosis of the udder were traced from the original 19 infected mixed samples collected at stations, etc.

15 of these cows have been slaughtered, and on the 31st December, 6 were isolated pending slaughter.

As the farmer at one of the farms from which an infected mixed sample was collected discontinued sending milk to Birmingham, we did not proceed with our investigations, but notified the Local Authority of the district that tuberculous milk was being produced at this farm.

(b) *The eradication of tuberculosis from dairy herds supplying milk to Birmingham.* At the end of the year there were 18 herds continuing under the above scheme, an increase of 2 over the previous year. During the year we had 6 applications for herds to be tested with a view to their inclusion in the scheme. Four of these herds tested for the first time are continuing in the scheme, and in the other cases the owners decided not to go on with the test.

Of the herds which have been tested for some time, two were discontinued during the year. One of them, which had been tubercle-free for many years, belonged to the Birmingham Tame and Rea District Drainage Board, who have now discontinued keeping cows; in the other case the owner has discontinued sending his milk to Birmingham.

The following is a list of the herds dealt with under the scheme:—

No.		Approx No. of animals.	Herds free.	Herds being freed.	Breeding herds.	Non- breeding herds.	Mixed herds.	City dairies.	Outside dairies.
1	...	120	1	—	1	—	—	1	—
2	...	12	1	—	—	1	—	—	—
3	...	43	1	—	—	—	1	1	—
4	...	20	1	—	1	—	—	—	1
5	...	50	1	—	—	—	1	—	—
6	...	22	1	—	1	—	—	1	—
7	...	34	1	—	1	—	—	—	1
8	...	33	1	—	—	—	1	—	—
9	...	12	1	—	1	—	—	1	—
10	...	31	1	—	1	—	—	—	1
11	...	14	1	—	1	—	—	—	1
12	...	21	1	—	1	—	—	—	1
13	...	4	1	—	1	—	—	—	1
14	...	12	1	—	—	—	1	1	—
15	...	45	1	—	1	—	—	—	1
16	...	19	1	—	1	—	—	—	1
17	...	13	1	—	1	—	—	—	1
18	...	52	—	1	1	—	—	1	—
19	...	30	Discontinued.						
20	...	46	Discontinued.						
21	...	32	Discontinued.						
22	...	57	Discontinued.						

Cow TESTING.

The testing of the herds which come under the scheme has been carried out half-yearly:—

No.		Cows tested.	Passed.	Failed.	Doubtful.
1	...	315	313	—	2
2	...	24	19	4	1
3	...	112	91	18	3
4	...	41	41	—	—
5	...	113	90	23	—
6	...	46	37	8	1
7	...	60	60	—	—
8	...	98	61	36	1
9	...	24	22	1	1
10	...	51	49	2	—
11	...	30	28	1	1
12	...	39	39	—	—
13	...	9	9	—	—
14	...	24	19	5	—
15	...	95	84	8	3
16	...	19	17	2	—
17	...	13	13	—	—
18	...	52	41	9	2
19	...	31	30	—	1
20	...	46	46	—	—
21	...	32	4	28	—
22	...	57	16	40	1
		1,331	1,129	185	17

The testing of herds Nos. 19, 20, 21 and 22 has been discontinued. The cows which failed to pass were in most cases animals which were purchased subject to their passing the tuberculin test, or cows in herds tested for the first time. Cows purchased subject to passing the test, and which failed to pass, were returned to the vendors; the doubtful reactors in tested herds were isolated and re-tested a month or six weeks later. The newly-purchased cows and those tested for the first time numbered 311, of these 67 or 21.54 per cent. failed to pass the test.

COST INCURRED BY TESTING HERDS.

The testing of the herds has continued to be carried out chiefly by the Corporation Veterinary staff and partly by Local Veterinary Surgeons on behalf of the Corporation. The cost of this work during the year was £91 9s. 8d., or which £39 was for tuberculin and £52 9s. 8d. for veterinary fees and expenses. In 1922 the cost was £69 4s. 2d., and in 1921 £89 18s. 6d.

PASTEURIZATION OF MILK.

Tubercle Bacilli may be killed in milk by heating. This may be done in the home by bringing the milk to the boil, in which case it has a boiled taste, or it may be heated at a lower temperature, 145 to 150 degrees F. for half an hour at the premises of the milk dealer. This latter method is almost universally employed in America and has been brought to a high degree of efficiency. The American methods were carefully enquired into and reported to the trade with a result that a considerable number of the largest milk vendors are now installing machinery for the pasteurization of their milk on good lines. It is hoped that in course of time all the retail milk in Birmingham will be made safe from Tubercle infection by adequate pasteurization, until the farmers are able to free their herds from tuberculosis.

Like all new things pasteurization has aroused a good deal of unnecessary opposition. It is said that it may not kill tubercle bacilli, that it may destroy important properties of the milk (such as its vitamins or its calcium salts), that it may destroy the natural flavour and that it may enable the milk vendor to sell dirty milk, which otherwise would not be saleable. People who make these statements seem to forget that for some time past 85 per cent. of the milk sold in Birmingham has been treated either by the process of sterilization or by the process of flash-point pasteurization, and that as far as can be observed at our infant welfare centres such milk does not produce harm in young infants. Further, that 20 years' experience in large American cities has confirmed the opinion that by adequate pasteurization we have our most ready means of killing all pathogenic germs in milk.

The pasteurization which has taken place in Birmingham in the past has been of great value in preventing the spread of Scarlet Fever and other septic infections. It is probably one of the reasons why the death-rate from Non-pulmonary Tuberculosis is a low one. But the older methods of pasteurization have been defective and unreliable. To be effective pasteurization must be carried out by informed workers and adequately controlled. This has not yet been done.

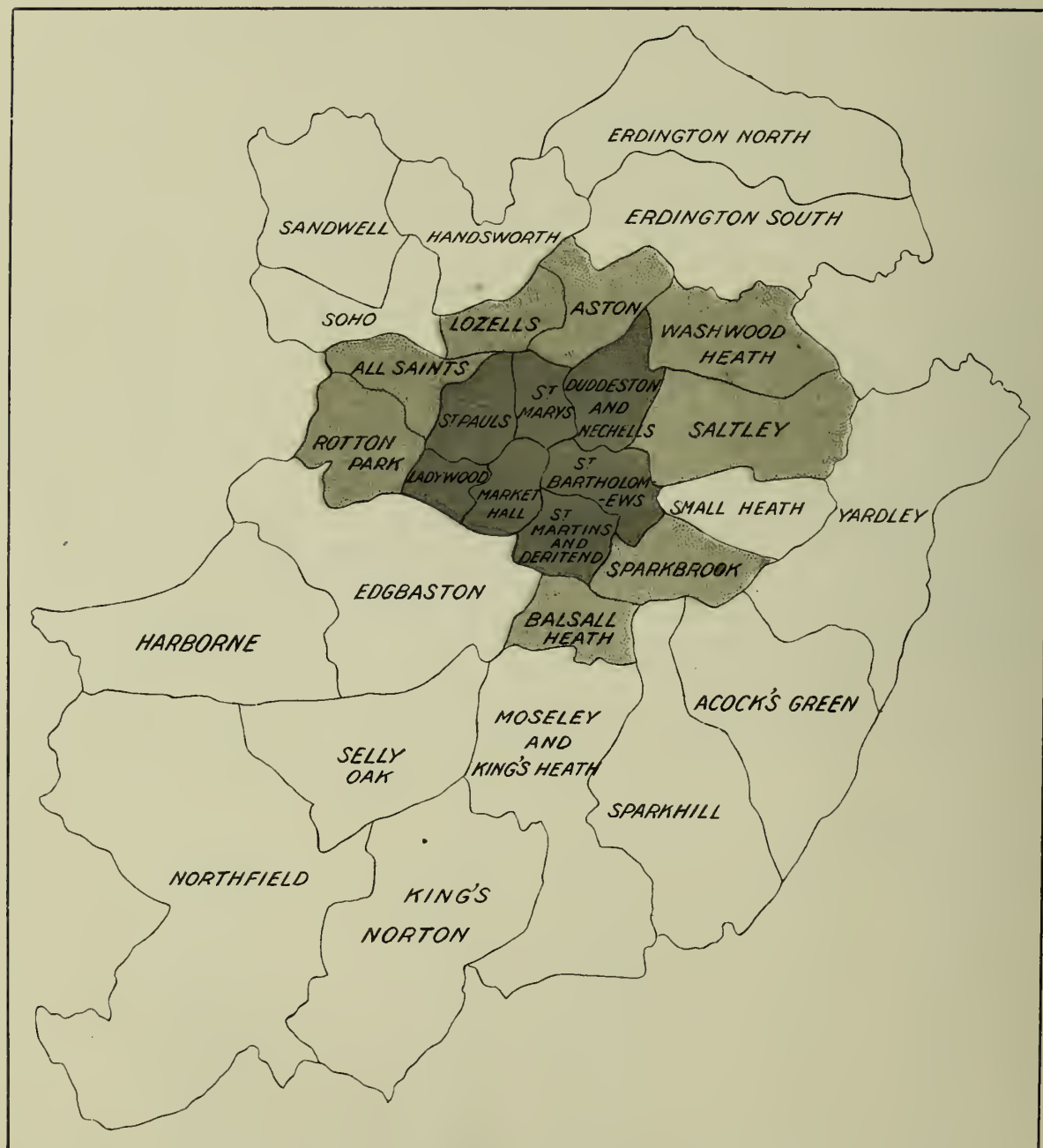
It is a pleasure to report that a number of firms are engaged in installing up-to-date plant and it is hoped that provision will be made for controlling this bacteriologically, otherwise the dairy-men will be working entirely in the dark.

How inefficient these plants are at present is indicated in the following table, which shows the bacterial counts from 511 raw milks and 266 pasteurized milks taken during the year 1923. The various pasteurizing firms are indicated by numbers.

BIRMINGHAM PASTEURIZERS.

		RAW MILK.			PASTEURIZED MILK.		
No.		Kind of Pasteurizer.	No. of Samples.	Average Bacteria per cubic cent.	No. of Samples.	Average Bacteria per cubic cent.	
1	...	Flash point	15	48,342	4	47,695	
2	...	Flash point	24	52,147	12	3,000	
3	...	Retarder	31	774,234	21	34,100	
4	...	Flash point	29	52,249	5	23,726	
5	...	Retarder	14	274,120	23	3,197	
6	...	Flash point	6	13,348	2	5,580	
7	...	Flash point	28	362,228	14	7,439	
8	...	Flash point	28	71,578	16	47,006	
9	...	Retarder	32	55,171	15	3,596	
10	...	Flash point	30	85,959	19	222,890	
11	...	Retarder	26	51,261	17	7,257	
12	...	Flash point	33	318,694	14	10,822	
13	...	Retarder	32	319,497	23	41,185	
14	...	Flash point	27	34,379	5	19,904	
15	...	Flash point	—	—	12	41,635	
16	...	Flash point	41	14,951	10	26,383	
17	...	Flash point	31	72,534	16	658	
18	...	Retarder	33	534,186	17	55,290	
19	...	Retarder	32	114,468	15	17,416	
20	...	Flash point	19	45,389	6	1,410	

INFANT MORTALITY IN WARDS



INFANT MORTALITY-RATE 1919-1923.

UNDER 70 PER 1,000

BETWEEN 70 AND 90 PER 1,000

OVER 90 PER 1,000



INFANT MORTALITY.

For several years past it has been possible for me to report a low infant-mortality rate. The year 1923 shows another record in this respect both for Birmingham and for many other parts of England.

For five years the rate for Birmingham has been well below one half of what it used to be twenty years ago. The following table briefly sets out the general Infant Mortality rates for recent years:—

					Birmingham.		England & Wales.
1901-05	...	...	...	...	157	...	138
1906-10	...	...	...	...	131	...	117
1911-15	...	...	...	...	126	...	110
1916	...	...	...	...	104	...	91
1917	...	...	...	...	101	...	96
1918	...	...	...	...	99	...	97
1919	...	...	...	...	84	...	89
1920	...	...	...	...	83	...	80
1921	...	...	...	...	83	...	83
1922	...	...	...	...	86	...	77
1923	...	...	...	...	72	...	69

DISTRIBUTION OF INFANT MORTALITY.

The rate in each ward of the City is set out in the next table. It will be noted that in the wards inhabited by the poorest people the reduction in the Infant Mortality rate was greatest. St. Mary's Ward, which for many years has had the highest mortality amongst children, had a reduction from an average of 154 in the preceding ten years to 103, that is to say, among every 1,000 babies born during the year there was a saving of 51 lives, while in Edgbaston there was a saving of 28 lives, and in Moseley of 12 lives, per 1,000 babies born.

					Infant Mortality Rate, 1923.	Infant Mortality Rate, 1913-1922.	Increase or Decrease in 1923.
Central Wards :	{	St. Paul's	...	...	104	135	—31
		St. Mary's	...	...	103	154	—51
		Duddeston and Nechells	...	...	99	132	—33
		St. Bartholomew's	...	...	81	140	—59
		St. Martin's and Deritend	...	...	93	126	—33
		Market Hall	...	...	80	126	—46
Average infant mortality rate, 91.		Ladywood	...	...	79	119	—40
Middle Ring :	{	Lozells	...	...	60	91	—31
		Aston	...	...	85	107	—22
		Washwood Heath	...	...	68	92	—24
		Saltley	...	...	59	86	—27
		Small Heath	...	...	62	79	—17
		Sparkbrook	...	...	59	86	—27
Average infant mortality rate, 64.		Balsall Heath	...	...	54	81	—27
Outer Ring :	{	Edgbaston	...	...	51	79	—28
		Rotton Park	...	...	67	103	—36
		All Saints'	...	...	79	103	—24
		Scho	...	...	54	81	—27
		Sandwell	...	...	57	70	—13
		Handsworth	...	...	45	72	—27
		Erdington North	...	...	48	66	—18
		Erdington South	...	...	58	66	— 8
		Yardley	...	...	73	69	+ 4
		Acock's Green	...	...	49	75	—26
		Sparkhill	...	...	34	63	—29
		Moseley and King's Heath...	...	...	49	61	—12
		Selly Oak	...	...	53	71	—18
Average infant mortality rate, 51.		King's Norton	...	...	76	65	+11
		Northfield	...	...	21	68	—47
		Harborne	...	...	46	62	—16
		City	...	...	72	101	—29

The Chart on the opposite page shows the distribution of the Infant Mortality in the wards of the City.

INFANT MORTALITY IN OTHER TOWNS.

The Infantile Mortality rates in the eight largest towns (from the Registrar-General's figures) were as follows:—

Glasgow	...	...	...	...	...	...	...	90
Birmingham	...	...	...	...	...	...	...	71
Liverpool	...	...	...	...	...	...	...	98
Manchester	...	...	...	...	...	...	...	85
Sheffield	...	...	...	...	...	...	...	89
Leeds	...	...	...	...	...	...	...	85
Bristol	...	...	...	...	...	...	...	61
Edinburgh	...	...	...	...	...	...	...	82
England and Wales	...	...	...	...	...	...	...	69

INFANT DEATHS BY AGE AND CAUSE.

The next table shows the causes of death and the ages at death of the infants who died under one year.

INFANT MORTALITY DURING THE YEAR 1923.

Deaths from stated Causes in Weeks and Months under One Year of Age.

Cause of Death.	Weeks.				Total under 1 month.	Months.				Total Deaths under 1 year.
	0.	1.	2.	3.		1.	3.	6.	9.	
Measles	—	1	—	—	1	1	3	10	26	41
Scarlet Fever	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	4	—	5	8	17
Diphtheria and Croup	—	—	—	1	1	—	—	1	4	6
Influenza	—	1	1	—	2	—	1	2	2	7
Tuberculosis Meningitis	—	—	—	1	1	2	3	7	5	18
Abdominal Tuberculosis	—	—	—	—	—	—	1	2	2	5
Other Tuberculosis Diseases	—	1	—	—	1	—	3	2	3	9
Rickets	—	—	—	—	—	—	1	—	—	1
Syphilis	—	3	—	—	3	2	3	—	—	8
Cerebro-Spinal Fever	—	—	—	—	—	—	—	—	—	—
Meningitis (not Tuberculous)	—	2	—	—	2	2	3	6	8	21
Convulsions	5	7	2	1	15	7	8	10	9	49
Bronchitis	2	2	4	6	14	27	19	14	13	87
Pneumonia (all Forms)	2	4	—	9	15	38	52	48	53	206
Gastritis	1	1	—	2	4	2	6	3	1	16
Diarrhoea, Enteritis, etc.	—	3	5	1	9	50	69	32	21	181
Congenital Malformations	27	11	5	3	46	19	6	5	1	77
Premature Birth	259	32	22	16	329	23	3	1	—	356
Atrophy, Debility and Marasmus	33	17	10	6	66	29	11	4	1	111
Atelectasis	15	1	1	—	17	1	—	—	—	18
Injury at Birth	19	4	1	—	24	1	—	—	—	25
Neglect (under 3 months)	5	—	—	—	5	—	—	—	—	5
Suffocation (Overlying)	3	2	3	—	8	9	3	2	1	23
Other Causes	7	6	8	8	29	13	12	14	15	83
All Causes	378	98	62	54	592	230	207	168	173	1,370

INFANT MORTALITY AT DIFFERENT AGE-PERIODS.

Of the babies who died during the year 1923 (1,370 in number) the following table gives the ages at death:—

Under 7 days	...	27	per cent.	} All under one month 43 per cent.
7 days to 28 days	...	16	"	
1—3 months	...	17	"	
3—6 "	...	15	"	
6—9 "	...	12	"	
9—12 "	...	13	"	

The above figures indicate that more infants die during the first seven days of life than during the last six months of the first year.

Stated in another way the rates of death per 1,000 births were as follows:—

	Birmingham, 1923.	England and Wales, 1922.
All under 4 weeks	31.1	34.1
4 weeks to 3 months	12.1	12.7
3—6 months	10.9	11.0
6—9 „	8.8	9.9
9—12 „	9.1	9.4

The largest cause of mortality among these infants was Prematurity, no less than 356 dying from this cause, as compared with 439 in the preceding year. Next in importance to prematurity is Pneumonia, closely followed by Diarrhoea and Enteritis and Debility and Marasmus.

STILL BIRTHS.

There were 629 still births reported during 1923, equal to one in every 30 live births, as compared with—

1922 ...	660 = 1 still birth to 30 live births.
1921 ...	804 = 1 „ „ 28 „
1920 ...	911 = 1 „ „ 28 „
1919 ...	744 = 1 „ „ 26 „

Careful inquiry was made to ascertain, if possible, information which might lead to the prevention of this great waste of life. Out of 492 cases in which definite information could be obtained the child had been dead in 172 cases for some time before its birth, as indicated by its macerated condition. That is to say, in 35 per cent. of these cases death took place some time before labour commenced. In 320 cases out of the 492 (i.e. 65 per cent.) the infant died at or immediately before birth. It is probable that a good many of these 320 cases might have been saved by better attendance at the confinement. Other facts elicited were—

1. That the age of the mother appeared not to have any relation to the occurrence of a still birth.
2. That few of these cases were illegitimate.
3. That 324 of the cases out of 548 were full-time pregnancies, equal to 59 per cent., 14 per cent. were at the eighth month, 22 per cent. at the seventh month, and 5 per cent. less than seven months.
4. The duration of the labour in 518 cases was ascertained. Of these 75 were more than 24 hours in duration, 130 varied from 12 to 24 hours, 165 lasted from 6 to 12 hours, and 148 were of less than 6 hours' duration. The indication here is that generally speaking the duration did not account for the death of the infant.
5. The question as to whether a mother who has had a still birth is liable to have still births at future pregnancies was investigated with the results shown in the accompanying table. The figures indicate definitely that repeated still births do occur in the obstetric history of the same woman.

PREGNANCIES OF MOTHERS WHO HAD STILLBIRTHS IN 1923.

				Mothers who had the following number of Stillbirths or Miscarriages.											
	No. of Mothers.			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1 Pregnancy ...	161	...	161	—	—	—	—	—	—	—	—	—	—	—	—
2 Pregnancies ...	85	...	68	17	—	—	—	—	—	—	—	—	—	—	—
3 „ ...	85	...	59	22	4	—	—	—	—	—	—	—	—	—	—
4 „ ...	56	...	32	17	4	3	—	—	—	—	—	—	—	—	—
5 „ ...	51	...	30	11	6	3	1	—	—	—	—	—	—	—	—
6 „ ...	38	...	23	12	3	—	—	—	—	—	—	—	—	—	—
7 „ ...	24	...	13	6	3	1	1	—	—	—	—	—	—	—	—
8 „ ...	19	...	4	8	3	—	2	—	1	1	—	—	—	—	—
9 „ ...	19	...	4	7	6	1	—	—	1	—	—	—	—	—	—
10 „ ...	13	...	7	3	—	2	—	1	—	—	—	—	—	—	—
11 „ ...	8	...	3	—	3	2	—	—	—	—	—	—	—	—	—
12 „ ...	7	...	1	2	3	—	—	1	—	—	—	—	—	—	—
13 „ ...	1	...	—	—	1	—	—	—	—	—	—	—	—	—	—
14 „ ...	5	...	1	1	—	1	—	2	—	—	—	—	—	—	—
15 „ ...	4	...	—	1	1	1	—	—	—	—	—	—	—	—	1
16 „ ...	2	...	1	—	—	—	—	1	—	—	—	—	—	—	—
Total ...	578	...	407	107	37	14	4	5	2	1	—	—	—	—	1

In 51 instances no information was obtained.

MATERNITY AND CHILD WELFARE CENTRES—YEAR 1923.

	10a Aston St.	Berkeley Rd., Hay Mills.	Bloomsbury St.	Bristol Road South, Northfield.*	Carnegie Institute. (From Oct. 29).	Farm St. (Till Oct. 27).	Harborne Lane, Selly Oak.	Hope St.	Lansdowne St., Winson Green.	Lichfield Rd.	Ridley St.	St. Vincent St.	Short Heath Rd., Erdington.	Smith St.	Stratford Rd.	Trinity Rd. (From Aug. 6).	Warwick Rd., Greet.	Washwood Heath Rd.	Wright St.	Floodgate St.	Stitchley and Cotteridge.	Handsworth.	Harborne.	Total.
Infants and Children :—																								
Births (and stillbirths) reported ...	766	437	1162	112	144	895	301	1071	1012	1145	642	867	526	996	1040	256	515	785	1179	710	298	625	209	15693
Primary visits ...	759	382	1141	95	163	836	287	1204	998	1286	646	959	423	1229	1092	240	520	880	1132	699	386	607	229	16193
Re-visits (infants and children) ...	9211	5588	14993	1771	1972	10001	5235	15882	15291	14187	9109	12350	4429	17239	15392	2280	5736	8838	13421	6239	4351	9935	3483	206933
Total visits and re-visits	9970	5970	16134	1866	2135	10837	5522	17086	16289	15473	9755	13309	4852	18468	16484	2520	6256	9718	14553	6938	4737	10542	3712	223126
Mothers :—																								
Primary visits ...	114	76	37	33	24	187	201	245	280	149	27	71	107	98	222	36	157	106	267	241	46	185	43	2952
Re-visits ...	122	96	80	65	19	144	182	268	266	79	38	164	43	83	206	19	243	131	370	1283	138	272	114	4425
Total visits and re-visits	236	172	117	98	43	331	383	513	546	228	65	235	150	181	428	55	400	237	637	1524	184	457	157	7377
Children's Consultations :																								
Number held ...	105	98	145	48	32	123	50	196	190	193	95	195	140	195	196	30	98	152	97	95	47	96	96	2712
Fresh children attending	664	298	799	91	248	744	216	870	768	1219	433	717	462	966	796	439	399	637	674	428	174	498	188	12728
Total attendances ...	6316	3407	5986	925	1640	5109	1849	6967	6857	12669	3079	6850	5136	9602	7652	1407	3709	7148	4644	5388	2508	6351	3186	118385
Number seen by Doctor	2486	2508	3459	858	750	2581	1272	4069	4294	4955	1751	4421	2947	4248	4031	781	2436	3785	2863	1159	1090	1629	1855	60228
Mother's Consultations:—																								
Number held ...	48	48	47	As required	16	39	23	48	49	49	As required	48	50	99	48	16	48	48	50	47	As required	23	46	890
Fresh mothers attending	220	102	355	53	64	237	83	218	217	569	36	226	165	499	226	41	186	228	301	222	11	64	63	4386
Total attendances ...	511	237	665	126	126	439	215	483	481	861	79	573	369	1046	417	68	514	627	492	657	22	85	298	9391
Attendance at :—																								
Sewing classes ...	1219	642	819	184	149	396	38	447	281	731	696	488	409	505	319	20	1010	543	514	932	220	362	139	11063
Cookery classes ...	440	—	—	424	—	—	—	—	358	76	—	—	—	334	165	—	74	—	—	—	—	—	—	1871
Health talks ...	2289	2294	780	669	560	1809	566	1830	2435	2433	520	1929	4084	2022	3517	159	461	806	1468	733	1433	341	80	33218

* Including Longbridge.

Attendances at Dental Clinics : Mothers, 1016 ; Children, 422.

CHILD MORTALITY.

Among children aged 1 to 4 years inclusive there were 725 deaths during 1923. The causes of death in these cases were as follows:—

Measles	132
Whooping Cough	26
Diphtheria	62
Scarlet Fever	17
Tuberculosis	68
Bronchitis and Pneumonia	227
Diarrhoea and Enteritis	38
Burns	21
All other causes	134

MATERNITY AND CHILD WELFARE CENTRES.

The statistical part of the work done at the 23 Centres is set out in the table opposite. Such a table, however, can only very inadequately indicate the scope and character of the work. The best idea of the value of the work can be obtained by examining the mortality statistics, by seeing the thriving infants who are benefiting by the advice given to their mothers at the Centres and by recognising the whole-hearted appreciation of the women of Birmingham who come to the Centres for advice.

A new Centre was opened during the year in Trinity Road to serve the Witton area, and a small Centre was started at Bartley Green. The Centre at Farm Street was transferred to the new Carnegie Infant Welfare Institute in Hunters Road, Handsworth. A description of this Centre appears to be called for in this report, and is given below:—

THE CARNEGIE INFANT WELFARE INSTITUTE.

The Carnegie Infant Welfare Institute originated in an offer made by the Carnegie United Kingdom Trust in a letter dated October 6th, 1917, in which the Trustees stated that they would be prepared to meet the cost of erection and equipment of a suitable building to serve the purpose in view, on the following conditions:—

- A. That a suitable site is provided by your Authority on which the building may be erected.
- B. That the plans and estimates to be drawn up by your Authority prove acceptable to the Trustees.
- C. That your Authority undertakes to maintain efficiently the Welfare Institute by means of Government grants and local rates and contributions.
- D. That the scheme is made part of the comprehensive system of physical welfare under the control of your Authority, and, as such, is approved by the Local Government Board for the purpose of imperial grants.
- E. That your Authority furnish annually, at all events for a certain period, concise and illuminating reports on the work of the Centre, which will probably be included in certain subsequent annual reports of the Trustees for the information of the public generally.

After preliminary enquiry and report, the City Council passed a resolution accepting the offer of the Carnegie United Kingdom Trust, and thanking the Trustees for it.

In 1918, a site in Hunter's Road was purchased, the total cost, including fees, being £1,604.

The Committee appointed Mr. Joseph L. Ball, Architect, of 25a, Paradise Street, to prepare a scheme for the building.

Two difficulties immediately met the Committee, one being the restrictive legislation in regard to the demolition of any dwelling houses, and the other the extraordinary increase in the cost of building, which took place immediately after the great war.

The first of these difficulties was met by waiting for some time, while the second was overcome by cutting down the original scheme, and by the Carnegie United Kingdom Trust generously increasing their offer.

On June 17th, 1922, the major contract for the building was let to Messrs. S. F. Swift & Son. The total cost of the building, including architects' fees, quantity surveyor's fees, and the necessary furnishing amounted to approximately £25,000.

The building is of Leicestershire brick of substantial design and structure, as will be seen from the photograph.

THE OPENING CEREMONY.

On October 13th, 1923, the building was handed over to the City Council by Lord Elgin on behalf of the Carnegie United Kingdom Trust, and was accepted by the Lord Mayor, Alderman Sir David Davis, J.P., on behalf of the City. At the same ceremony the building was declared open for its beneficent purposes by the Chancellor of the Exchequer, the Right Hon. Neville Chamberlain, M.P.

THE WORK OF THE INSTITUTE.

In regard to infants and young children there is the strongest evidence that the great reduction in mortality in this country is the result of the better education of the mothers, not only generally, but particularly in regard to the requirements of their children in connection with their health. The better educated and more intelligent the mother, the lower the death-rate, and, other things being equal, the better the physique of her children. It is not so much a problem of poverty, as of making use of the right means for the rearing and feeding of young children.



GENERAL VIEW.

The more intelligent the mother, the greater is her desire to obtain accurate information as to the best way of dealing with her baby. Maternal affection is as strong in the poorest as in the wealthiest of mothers. Now that useful information is available in child welfare centres there is no difficulty in getting the mothers of the district to attend and obtain advice as to the best methods of feeding and caring for their children. The maternal instinct alone does not give a mother the necessary knowledge as to how her child should be protected from the many baneful effects of community life, and experience has shown her that such knowledge can be obtained at an institution like the Carnegie Infant Welfare Institute.

INFANT CONSULTATIONS.

It is, therefore, intended that as a basis for all the operations carried on in this institute, consultations with mothers as to the rearing and feeding of their children, shall form the ground work. There will therefore be, in the Institute, consultations every day to which mothers may bring their babies and young children. As the work grows they will probably be held all through the day.

WAITING HALL.

For this purpose there is a large waiting hall, which, in addition to being used as a waiting hall for the mothers, will also be utilized for many other purposes. In the waiting hall the preliminary information will be obtained from the mothers as to their names and previous visits.



WAITING HALL.

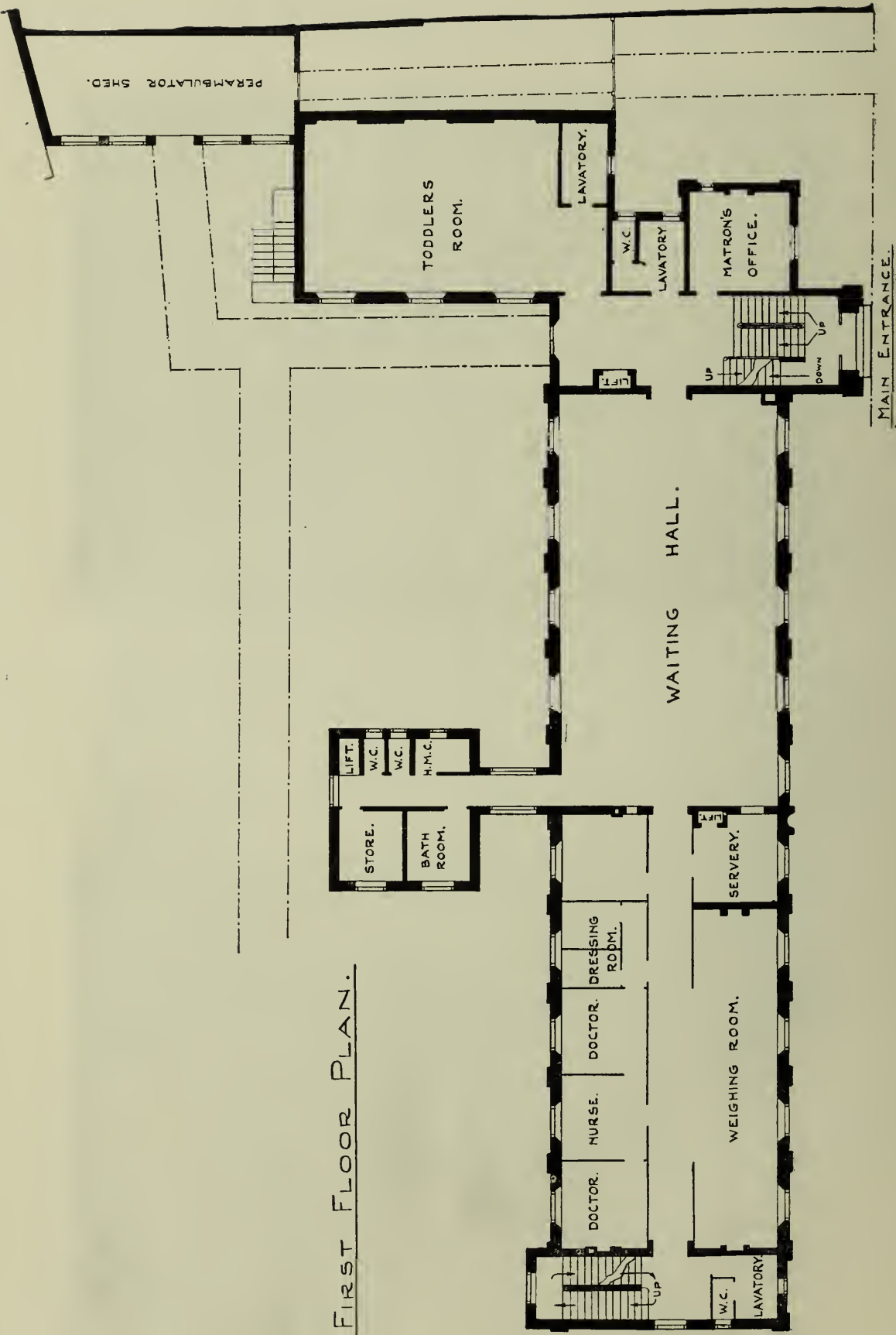
WEIGHING ROOMS AND CONSULTATION ROOMS.

From the waiting hall the mothers are passed into what is generally called the weighing room, where babies can be undressed in front of one of the two fires, there being accommodation for the undressing of twenty babies. The babies are then weighed and passed on for examination by a qualified medical woman, who gives the mother the necessary advice.

By these means it is hoped that a very large number of babies will be seen at intervals. Most of them will be perfectly healthy, but many will be found from conversation with the mother, to be living in a way which may in time produce ill health. Our desire is that we should get babies, who are primarily healthy babies, and by hygienic treatment keep them healthy.



ONE END OF WEIGHING ROOM.



FIRST FLOOR PLAN.

There must always be some ailing babies. In a few of these cases definite illness exists, in which case the mother is advised to consult her own family doctor, or to take the baby to a hospital or dispensary. In between the group of quite healthy babies and those who are definitely ill, there is a large group where advice alone, accompanied by some simple remedy, is sufficient to cause a return to normal health. Drugs are not given or sold.



ONE OF THE DOCTORS' CONSULTATION ROOMS.

An attempt will be made to look after all the babies and children up to five years of age who live in the area surrounding the Institute. For poor mothers who cannot afford to pay the retail price of certain prepared milk foods, such as dried milk, a supply of these is kept in the room marked "Food Store" on the plan. These are sold at a price which just covers their cost. From this store certain other foods such as cod liver oil are also supplied.

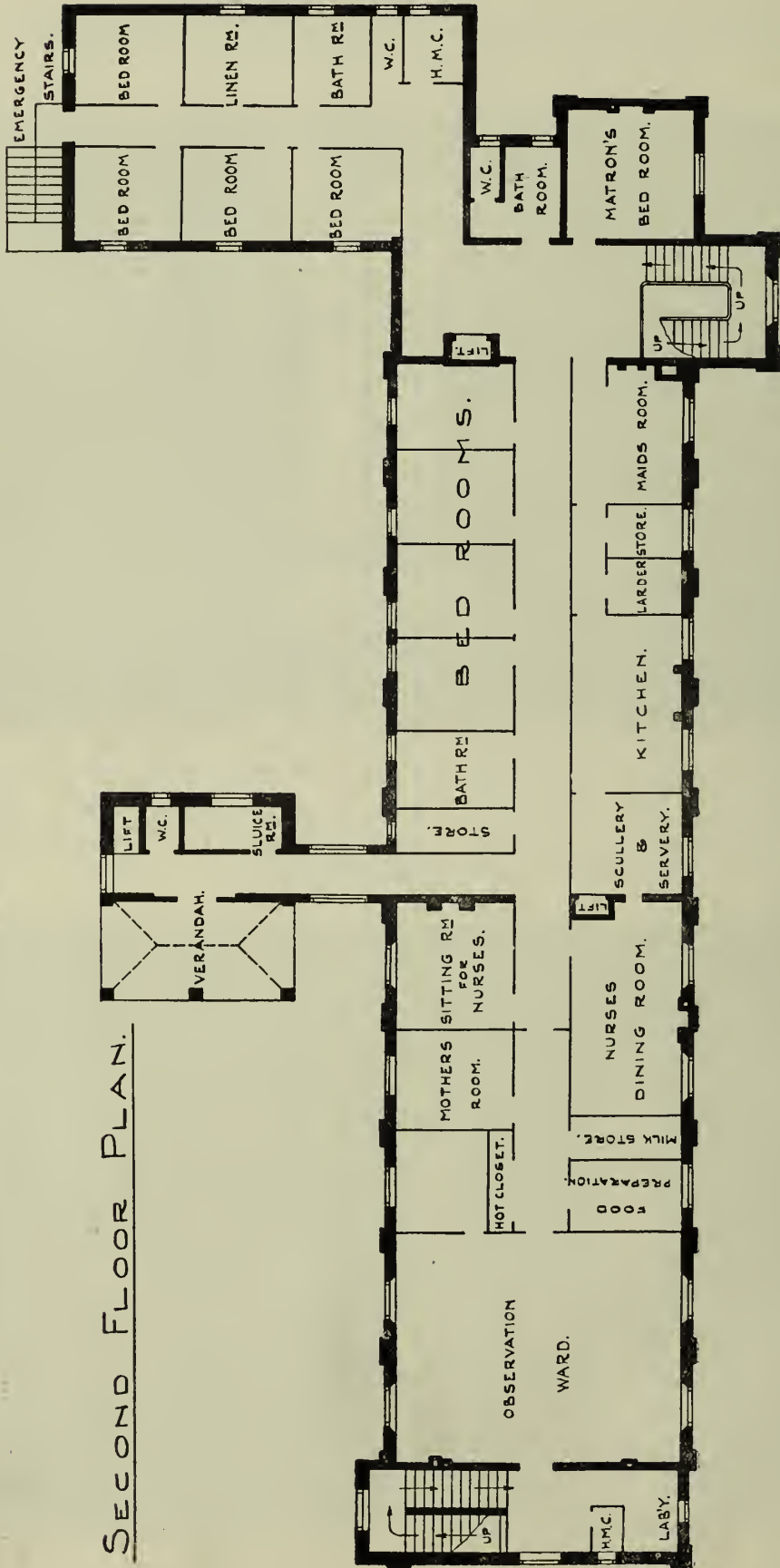


OBSERVATION WARD.

OBSERVATION WARD.

There are always a few babies brought to the consultations who do not thrive and who are apparently suffering from some digestive defects which are very difficult to get right. These babies, and they are few in number, will be referred for treatment to the observation ward, which is on the upper floor of the Institute.

SECOND FLOOR PLAN.



This ward has accommodation for eight babies. The cots and cribs are all on wheels so that these children can be put out on to the balcony when the weather is suitable. The necessary changing and bathing room is provided in the ward so as to enable all the children in this ward to be nursed on the barrier system, which means that no infection can be carried from one child to another. A milk preparation room is also provided for the feeding of these children.

At the consultations, too, it will probably be found that some babies are commencing with rickets. Such cases will be referred, in the first place, to the X-Ray Room, in order to make quite certain of the diagnosis. Specimens taken from these little patients will be examined, when necessary, in the laboratory on the upper floor. The medical attendants, therefore, will have all the necessary facilities for diagnosis at hand. A few babies may require massage and this will be given. Others, again, may require some dental treatment or advice, and these will be referred to the Dental Department on the lower floor.

Among the babies coming up a few may be found where the mother has improperly given up breast feeding, and where, with a little care, breast milk may be restored and the baby given its proper food. For mothers such as these accommodation will be provided on the upper floor and an attempt will be made to restore breast milk, the mother being kept in the Institution for a few days.



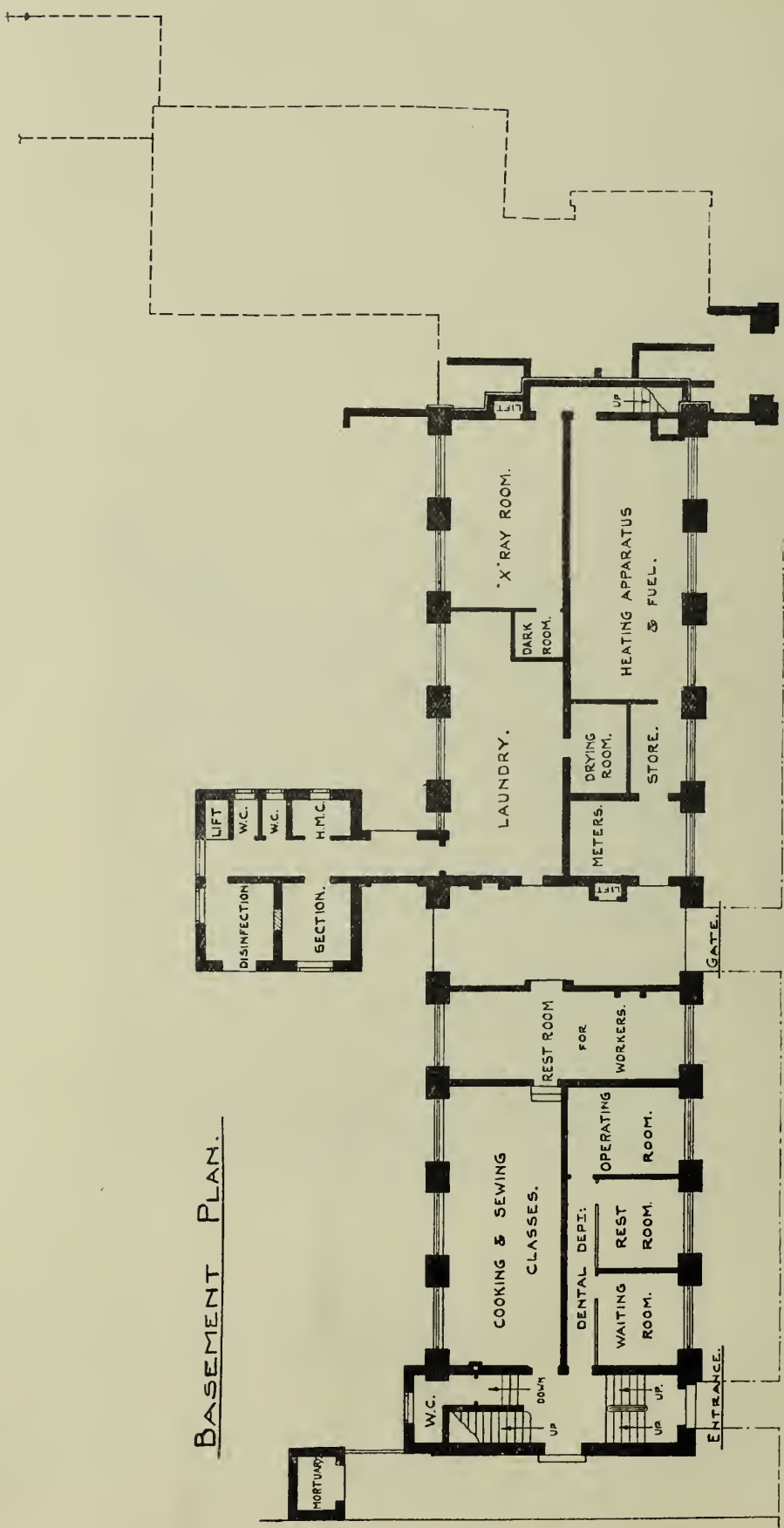
SUN BALCONY.

ANTE NATAL CARE OF THE MOTHER.

We cannot have healthy babies without looking after the health of the mothers in a considerable number of cases. It is now generally recognised that an expectant mother should see a doctor some time before the birth of her baby, with a view to ascertaining conditions which either may effect her health or the health of her baby. Similarly, there are a good many conditions immediately following birth which can be remedied by simple advice given at the proper time.

For this ante-natal work certain sessions will be set apart and the mothers will come up for advice by an expert. The ordinary waiting hall will be used, but special dressing rooms are provided. It is hoped that in a certain number of cases it may be possible, by referring these mothers to a hospital sufficiently early, or by taking other steps to get proper treatment, to save both mothers' and infants' lives which might otherwise be lost and to prevent periods of serious ill-health.

BASEMENT PLAN.



A considerable number of expectant and nursing mothers suffer from grave defects in their teeth, and these will be referred to the Dental Department of the Institute for treatment.

THE FEEDING OF EXPECTANT AND NURSING MOTHERS.

It is found in all our Centres that there are a few mothers who are underfed to such an extent that their own health is damaged and the health of the unborn or suckling child is endangered. These are generally cases where the father of the family is suffering from a long illness, or is out of work, or is in prison. Most of these mothers are very deserving women, and it has been found by experience that if food is given them to take home it is shared by the other members of the family and little, if any, goes to the mother herself. For this reason arrangements are made at many of the centres for supplying one substantial meal daily **not** to be taken home, but to be eaten at the Centre. Provision is made in the waiting hall, by means of movable trestle tables, for such meals to be given. It will be noted that there is a servery at the end of the hall with a hatch and a lift, through which the food is received into the hall. This food will either be cooked in the kitchen upstairs or sent in from a central kitchen.



TODDLERS' ROOM.

THE TODDLERS' ROOM.

Few mothers with young children can leave home without taking the "toddlers" with them, and as it is necessary to keep the women waiting until each one's turn comes at any ante natal or child welfare clinic, it is desirable to have a place where these toddlers can be looked after. A large room has, therefore, been provided where an attendant will take charge of the toddlers while their mothers and the younger children are being attended to. This room adjoins the entrance hall, as will be seen by reference to the first floor plan on page 46, and is suitably furnished for the purpose for which it will be used, as shown in the photograph. A good "pram" shed is also provided.



MATRON'S SITTING ROOM.

STAFF ACCOMMODATION.

A dining room and a sitting room for nurses is provided; also a sitting room for the matron; and bedroom accommodation for the matron and four nurses; together with single rooms for four maids. The fittings of these rooms are on the most approved lines.



NURSES' DINING ROOM.

DENTAL DEPARTMENT.

The dental department is on the ground floor and consists of a dentist's operating room, recovery room and waiting room. All these are fitted up with the most recent appliances.

OTHER ACCOMMODATION.

The X-Ray Room and photographic developing room are situate in the basement, where there is also accommodation for a laundry and a disinfecting apparatus; outside in the grounds there is a small mortuary.

EDUCATIONAL ASPECTS OF THE INSTITUTE.

In addition to the education of mothers in matters connected with their own health and the welfare of their children, which will be accomplished by the consultations indicated, provision has also been made at this Institute for the education of the Birmingham child welfare workers in the best methods of dealing with the problems which arise in their work. It is hoped that at least three workers from other centres will be constantly attached to the Institute for short periods, say, of three months, and that demonstrations will be given to them at certain times on special aspects of child welfare work.



DEMONSTRATION ROOM.
(Cooking, Sewing, Etc.)

In this way the new Institute will serve indirectly a much larger population than that which is attached to the Institute itself.

There is still another way in which educational work can be done which will benefit the rising generation. A great many young mothers desire information on numerous matters of detail, and "health talks" will therefore be given in the large waiting hall, and demonstrations in cookery and the making of clothing will be given in the special demonstration room on the ground floor.

The hall has been made large enough for public lectures to be given on various aspects of health work. For this purpose diagrams and lantern slides will be used to illustrate the lectures.

In these many and diverse ways it is hoped that the Institute in the course of time will prove to be of the greatest benefit to the City.

WITTON BABIES HOSPITAL.

This hospital was opened in 1921 for dealing with the two groups of diseases, (a) Marasmus, (b) Epidemic Diarrhoea, occurring in young infants.

Owing to the occurrence of Smallpox in Birmingham and its extensive prevalence in districts near, it was considered desirable to remove the babies from Witton to Lodge Road Hospital as a temporary measure. This was done on June 28th, 1923.

The 25 beds have been kept full during the whole year. The admissions numbered 108 against 97 in the previous year, and were as follows:—

For Marasmus	...	...	...	...	74
„ Rickets	...	...	...	...	19
„ Debility, etc.	...	...	...	...	15

Four cases of Whooping Cough occurred among the babies during the year.

No cases of epidemic Diarrhoea were admitted, as the disease was but slightly prevalent in the City.

HEATHFIELD ROAD MATERNITY HOME.

This Home has accommodation for 18 patients if it were possible to fill all the beds at one time. There were 266 women admitted for confinement during the year, as compared with 240 in the previous year. The cases admitted are limited to those whose home conditions are bad. Most of them come from apartments, and have no house of their own.

The average stay in the Home was 16 days.

The midwives attached to the Home delivered 230 patients, and 36 were delivered by doctors. One maternal death occurred, due to old-standing heart disease, and 11 infants died. Of these deaths six were due to still-birth, two to Atelectasis, and three to Cerebral Hæmorrhage. Medical assistance was called in whenever required by the rules of the Central Midwives' Board.

One patient suffered from puerperal sepsis, and made a good recovery.

HOME HELPS.

These are women who attend to the household when the mother is laid aside by reason of a confinement. All of them have had instruction and experience in the management of a house and in cooking. They have been specially selected as reliable women.

The conditions of service and fees payable are as set out in the leaflet below:—

CITY OF BIRMINGHAM PUBLIC HEALTH DEPARTMENT.

HOME HELPS.

Arrangements have been made for the supply of Home Helps to households during the lying-in period.

Care has been taken in the selection of women to act as Home Helps, both in regard to character and competency, but the Public Health Department do not take any responsibility for the conduct of these Home Helps. In any case where a Home Help is found inefficient or unsatisfactory in any respect, private information should be sent to the Public Health Department at once.

Duties. The Home Help will attend between the hours of 8 a.m. and 6 p.m. daily for twelve days (Sundays excepted).

She will keep the house in a clean condition and do the cooking, two weeks' washing, and give general supervision of the children. (She will not undertake arrears of washing).

The Home Help must not interfere in any way with the instructions of the doctor or midwife. When a doctor alone is in attendance she will, if requested, bathe the newly born baby, and carry out any other instructions given by the doctor with regard to mother or baby. She must not undertake the duties of a Nurse.

The Home Help will bring her own food and cook it.

The public Health Committee will pay the Home Help after proof of satisfactory service.

Fees for the services of a Home Help must be paid at least one month before her services are required. In each case an official receipt will be given. No Home Help will be sent unless the fee is paid.

A Home Help may be engaged at any of the Maternity and Child Welfare Centres, or at the Public Health Department, the Council House (Congreve Street entrance), Room No. 20, from 9 a.m. to 11 a.m. daily, or on Monday afternoons from 2.30 to 5 o'clock. She should not be required to commence her duties until the baby is born.

CHARGES FOR THE SERVICES OF HOME HELPS.

When the income of the family, after deducting the rent, is:—

Below 9/-	per head per week, the charge is	1/-	per day.
Between 9/- and 12/-	„ „ „ „ „	2/-	„ „
„ 12/- „ 15/-	„ „ „ „ „	3/-	„ „
Over 15/-	„ „ „ „ „	5/-	„ „

Applications for the services of Home Helps should be made to Miss Wright, Public Health Department, the Council House, or at any of the Maternity and Child Welfare Centres.

November, 1922.

JOHN ROBERTSON,

Medical Officer of Health.

The number of engagements during 1923 was 203, as compared with 137 in 1922. The cost of the service after deducting payments by the patients amounted to £364 in 1923.

MATERNITY FEEDING CENTRES.

Pregnant or nursing mothers who are found to be suffering from under-nourishment are asked to come to one of the feeding centres for one meal a day, provided the trouble arises from some cause which they cannot reasonably overcome by their own efforts. Those mothers who can pay are charged for the meal.

During last year there were 42,532 dinners served at the Maternity Feeding Centres, where the attendances have been very regular and the meals served have been of a uniformly good quality, with as much variety as possible in the choice of dishes.

A two-course dinner, with meat and two vegetables and a variety of steamed puddings or milk puddings, has been the usual menu, with the addition of fruit pies when it is feasible to get fresh fruit.

All the cooking has been done by a restaurateur, who undertakes to have the dinners cooked and ready for transport by 10.30 a.m. each day. This arrangement allows of re-heating the food at the Centres before serving.

In January a new dinner Centre was opened at St. Vincent Street Welfare Centre, as many mothers were known to be suffering from lack of proper nourishment. The attendances at this Centre have been very steady throughout the year, and the meals much appreciated.

At the end of the first quarter the premises at St. Stephen's School Rooms were given up, and more convenient rooms were acquired at Barnsley Hall, Hatchett Street. These have proved very comfortable quarters, even during the coldest weather.

Dinners were discontinued at Dyson Hall, Aston, after Whitsuntide, owing to greatly decreased attendances. On enquiry it was found this was mainly due to there being much less unemployment in the district, and the need for a dinner Centre did not appear so urgent.

In July a change was made at Smith Street Welfare Centre, which necessitated the daily delivery of cooked meals instead of having the food cooked on the premises as had previously been done.

In December the Carnegie Infant Welfare Institute was used as a feeding Centre, with an average daily attendance of 14 mothers up to the end of the year.

The extra transport required for the additional centres has been satisfactorily arranged, so that a sufficiently early delivery of the meals is guaranteed to each of the seven dinner Centres.

ATTENDANCES.

Hope Street	6,890	} 42,532 meals.
River Street	...	...	...	...	6,314
Bloomsbury Street	...	...	...	...	6,293
Dyson Hall	...	...	...	...	1,507
New Town Row	...	...	...	...	7,972
Smith Street	...	...	...	...	7,620
St. Vincent Street	...	...	...	...	5,721
Carnegie Institute	215	

Cost.

							£	s.	d.
Total cost of food	...	...	...	...	...	...	1,115	1	0
Receipts from Centres	...	...	...	...	...	...	359	10	4
Nett cost of food	...	...	...	...	...	...	755	10	8
Transport	...	...	...	...	...	...	110	8	0
							865	18	8
Cost per meal	...	...	...	...	...	...			4.8

PYPE HAYES CONVALESCENT HOME.

Good use was made of this Institution during the year, the total number of mothers admitted being 345. In nearly all cases the mother was accompanied by her young baby.

MIDWIVES ACT.

During the year 219 midwives gave notice of their intention to practise in Birmingham. Of these 159 were certificated and 60 were of the "bona fide" class. There were 13 who ceased to practise during the year. In 1907 there were 93 per cent. of the midwives of the bona fide class, while to-day this group represents 27 per cent. only.

Of the births occurring during 1923, 11,801 or 62 per cent. of the whole were attended by midwives.

By the rules of the Central Midwives' Board midwives are required to send for medical aid under conditions and for reasons which are definitely laid down. In 1923 medical aid was summoned in 2,194 cases, or 19 per cent. This is a larger proportion than usual, and is due to the greater ease with which such aid can now be obtained. The causes for sending for medical help were as follows:—

In the case of the mother.				In the case of the child.			
Delayed labour	...	...	566	Ophthalmia	...	...	220
Laceration of perineum	...	...	308	Prematurity	...	...	133
Hæmorrhage	...	...	117	Convulsions	...	...	10
Adherent placenta	...	...	87	Jaundice	...	...	18
Placenta prævia	...	...	9	Deformity	...	...	42
Abnormal presentation	...	...	115	Skin eruption	...	...	149
Abortion or miscarriage	...	...	36	Other causes	...	...	89
Rise of temperature	...	...	121				
Eclampsia	...	...	4				
Other causes	...	...	170				

If the patient does not pay for the assistance given the medical practitioner can claim his fee according to a scale from the Public Health Committee.

During 1923 528 claims were made and investigated. The total amount paid on these claims was £816 1s. 0d. The amount recovered from the patients was £488 4s. 9d. The recovery of the fees cost £184 4s. 8d., so that the nett cost to the City was £512 0s. 11d., or approximately £1 per case.

The two midwives' inspectors paid 311 visits to midwives at their homes, and had 229 interviews with them at the Council House.

One midwife was cautioned by the Public Health Committee for breach of the rules.

One woman, whose name had been removed from the Midwives' Roll, was prosecuted for acting as a midwife. She was fined 40/-, and a medical practitioner who assisted her had his name removed from the medical register.

A midwife who was guilty of disgraceful conduct was reported to the Central Midwives' Board. The Board removed her name from the roll.

THE WELFARE OF THE EXPECTANT MOTHER.

The following report on the working of the scheme for getting midwives to devote time and attention to mothers before the birth of their babies is drafted by Dr. Ethel Cassie, Assistant Medical Officer of Health.

The scheme for encouraging the midwives to do a larger amount of ante-natal work has now been in practice for 18 months, and it is possible to consider what amount of success has been obtained. There can be little doubt that this definite attempt to encourage the midwife to feel that she owes a duty to her patient prior to her confinement has borne fruit in a greater sense of responsibility and a greater recognition of the importance of good health during pregnancy. Apart from the effect on the midwife herself, all such work has a marked educational value, it impresses on the mother the necessity for care, and in time the women themselves will realise the need for careful ante-natal examination, and will come to demand it.

At all the Child Welfare Centres a constant campaign of health talks is maintained to impress on the women the need of ante-natal examinations, and with these educational factors at work it may be expected that the patients themselves will shortly come to demand the attentions which they still too frequently feel are unnecessary. At present the midwives are undoubtedly hampered to some extent by the refusal of their patients to have personal examinations or even an examination of the urine. They are reluctant to insist too strongly in case they antagonise the patient and lose the case. Here, however, the personal element plays a large part. The well-established, popular midwife can afford to insist, and one is glad to say that she does so to an increasing extent.

On the whole the midwives work well with the ante-natal centres, recommending all cases to attend, but greater stress is undoubtedly laid on the need for primiparæ to attend. Owing, however, to the prevailing influence of the grandmother it is reported that in many cases the midwife's advice is not followed. There is no attempt made to follow up these cases, and induce them to go, though occasionally a midwife refuses to book a patient till she has received a report from a child welfare centre or till the patient has also engaged a doctor. These cases are those in which from the general appearance of the patients the midwife suspects the presence of a contracted pelvis or ill-health.

In all those cases in which the patient has attended the child welfare centre with a midwife's card, reports have been received by the midwife, and no complaints are made on this score. It is considered, however, that in some instances patients are recommended too lightly to go to a hospital or nursing home, and this causes some natural resentment.

Many of the midwives pay ante-natal visits to the patient's home if there appears to be any need for this. This is a thoroughly useful procedure, as preparations for the confinement can be discussed and a further opportunity is given for enquiring into the general health and for testing the urine; such visits should be paid to a much greater extent than at present. The midwives are very much hampered, however, by the late date at which patients book and here again improvement can only be hoped for with the greater diffusion of knowledge. The examination of the urine is done by many of the midwives but they frequently have difficulty in obtaining a specimen. In very few instances is more than one examination attempted.

It is quite exceptional for a midwife to take any measurements. The lack of training in this and in abdominal examination generally is obviously the reason, but even if this were not the case it is certain that in very few instances would the midwife be able to carry out such work in her own home, as there is no suitable accommodation and a visit to the patient would be required. A few of the midwives take patients personally to the Centres, but the majority have no time. In the better class areas the midwives usually send their cases to private doctors for ante-natal examinations and it is rather an extraordinary thing that complaints are received from the midwives that the doctors object to this being done when there is very little wrong.

The ante-natal Registers are much appreciated by some of the midwives, others have not yet quite learnt their use; the great majority are, however, attempting to keep these records. With some modifications which have been suggested by experience in their use, there can be no doubt that these books can be made of real value to the midwife.

Several midwives are making excellent use of the Maternity Outfits supplied by the Public Health Departments, and are most appreciative, others complain that even the low cost of the outfits makes them prohibitive at the present time. On the whole, however, considering the short period during which they have been available good use has been made of these outfits.

The following figures show what is being done:—

No. of midwives residing in Birmingham ...	...	...	...	...	...	...	...	...	208
" " definitely attempting ante-natal work	...	...	...	...	...	...	...	...	189
" " keeping ante-natal registers	...	...	...	...	...	...	...	...	182
" " using ante-natal clinics freely	...	...	...	...	...	...	...	...	151
" " testing urine	...	...	...	...	...	...	...	...	68
" " considered to be doing really satisfactory ante-natal work	...	...	...	...	...	...	...	...	55
No. of Maternity Outfits sold in the year 1923	...	...	...	...	...	...	...	...	106

PUERPERAL MORTALITY.

The cases and deaths from Puerperal Fever are set out below for the past twelve months:—

Year.	Cases.	Deaths.	Deaths per 1,000 births.
1912	78	27	1.22
1913	112	44	1.85
1914	149	33	1.42
1915	161	35	1.65
1916	170	31	1.50
1917	97	26	1.47
1918	92	29	1.72
1919	105	23	1.19
1920	148	51	2.03
1921	105	26	1.17
1922	137	25	1.26
1923	186	34	1.78

It will be noted that the number of deaths and the death-rate were high during 1923. The notifications of new cases were also more numerous, but no great importance need be attached to the latter increase. It is probably due to the better notification of the cases and possibly the number notified would be five or six times as great as it is if every case in which puerperal sepsis exists were reported, however mild.

The next table shows the mortality during the puerperal period not only from sepsis but from other causes.

					Puerperal	Other	Total Mortality.	
Year.					Fever.	Causes.	Birmingham.	England & Wales.
1912	...	...	...	...	1.22	2.03	3.25	3.78
1913	...	...	...	...	1.85	2.01	3.86	3.71
1914	...	...	...	...	1.42	1.77	3.19	3.95
1915	...	...	...	...	1.65	1.79	3.44	3.94
1916	...	...	...	...	1.50	1.94	3.44	3.87
1917	...	...	...	...	1.47	1.13	2.60	3.66
1918	...	...	...	...	1.72	1.31	3.03	3.55
1919	...	...	...	...	1.19	1.45	2.64	4.12
1920	...	...	...	...	2.03	1.56	3.59	4.12
1921	...	...	...	...	1.17	1.67	3.84	3.71
1922	...	...	...	...	1.26	1.76	3.02	3.81
1923	...	...	...	...	1.78	1.73	3.51	—

PEMPHIGUS NEONATORUM.

One hundred and twenty-six cases with 10 deaths were reported during 1923 by Birmingham midwives. The importance of this disease as a cause of death has not been fully realized by writers of text books on diseases of infancy. Possibly the infection is more prevalent and more virulent in this area than elsewhere. A number of outbreaks occur every year in the practice of midwives. In 1923 seven midwives had 57 cases with five deaths—that is to say they had an average of eight cases each in the outbreak. On the other hand 20 midwives had only one case each. It is frequently difficult to prevent this infection from being spread by midwives even when the woman herself is careful.

OPHTHALMIA NEONATORUM.

During the year 1923 there were 433 cases of Ophthalmia reported. The following is a list of cases where severe damage to eyesight or probable blindness existed after a period of six months after the attack :—

No.	By whom confined.	Prophylactic used.	Where treated.	Result.
1.	Dudley Road Infirmary	?	Dudley Rd. Hos- pital and Eye Hospital	Both eyes badly scarred. Little vision. Probably a blind child
2.	Doctor and handywoman	Not used	Eye Hospital	Both eyes badly scarred. Little vision. Probably a blind child
3.	General Hos- pital, B'ham	Sol. Nit. Silver?	General and Eye Hospitals,	Both eyes badly damaged. Probably a blind child.
4.	Doctor and midwife	?	Eye Hospital	Both eyes damaged, but some sight left
5.	Selly Oak In- firmmary	?	Selly Oak and Eye Hospitals	Severe damage to both eyes. Probably a blind child.
6.	General	Sol. Nit. Silver?	General and Eye Hospital	Severe damage to both eyes. Probably a blind child.
7.	Midwife	Collosal Argentum	West Bromwich Infirmary and Eye Hospital	Right eye clear. Left eye very defective.
8.	Midwife	Collosal Argentum	Eye Hospital	Slight scar on left eye.
9.	Midwife	Collosal Argentum	Eye Hospital	Left eye blind. Right eye very defective. Probably a blind child
10.	Doctor and midwife	Collosal Argentum	Eye Hospital	Both eyes slightly scarred.

All the other cases recovered, the majority being of a very mild form.

The above list shows the worst results obtained in Birmingham since the Public Health Committee commenced to devote attention to the prevention of blindness.

At least three of these blind babies were treated by the most experienced eye specialists from a few hours after birth. In at least these three cases it is difficult to imagine what more could have been done to prevent this horrible catastrophe. Of the six probably blind babies four were born in well-equipped hospitals, one was in the practice of a doctor and the sixth in the practice of a midwife. Every one of the cases were sent sooner or later to the Birmingham and Midland Eye Hospital.

PREVENTION OF OPTHALMIA.

For some years a half per cent. solution of silver nitrate was supplied free to midwives with an instruction that after swabbing each eye with a sterile swab separately two or three drops of the solution should be run into each eye. Several other solutions have been recommended from time to time, and as a result two proprietary solutions were used by midwives. If it is presumed that the solutions were used in every case the results would be as follows :—

	Births attended by midwives using solution.	Cases of Ophthalmia.	Percentage of attack.
Sol. A. Silver Nitrate $\frac{1}{2}$ per cent. ...	4,760	79	1.7
Sol. B. Silver Nitrate 1 per cent. ...	1,521	48	3.2
Sol. C. Proprietary	6,018	217	3.6
Sol. D. Proprietary	82	8	9.7
All forms	12,381	352	2.8

It would appear from the above that the weaker form of Silver Nitrate is the best prophylactic under the conditions in which it is used.

VENEREAL DISEASES.

The new cases of Syphilis and Gonorrhoea coming up for treatment since public clinics were established have been as follows :—

Year.	New cases of Syphilis.				New cases of Gonorrhœa.		
	Male.	Female.	Total.		Male.	Female.	Total.
1918 ...	502	355	857	...	588	100	688
1919 ...	782	459	1,241	...	1,399	187	1,586
1920 ...	704	441	1,145	...	1,190	185	1,375
1921 ...	423	343	766	...	825	131	956
1922 ...	220	237	457	...	628	83	711
1923 ...	296	239	535	...	666	89	755

Note.—About 90 per cent. of these cases are Birmingham residents.

Of the cases coming up for the first time for treatment the numbers using the various clinics were as follows :—

	New cases of Syphilis	New cases of Gonorrhœa.	Total new cases.	Total attendances.
General Hospital	430	574	1,004	31,985
Skin and Urinary Hospital ...	58	140	198	9,155
Women's Hospital	47	41	88	2,360

The figures indicate that fewer cases of syphilis were treated than in any previous year, except 1922, and rather more cases of Gonorrhœa were treated during 1923 than 1922, but less than in other years.

Particulars of the cases treated during 1923 are given below :—

	SYPHILIS.			GONORRHOEA.		
	Males.	Females.	Total.	Males.	Females.	Total.
Number of patients under treatment or observation, January 1st, 1923	93	380	473	386	189	575
Total number of new cases	296	239	535	666	89	755
Total number of attendances	4,518	6,124	10,642	31,288	1,570	32,858
Aggregate number of in-patient days	236	1,170	1,406	351	446	797
Ceased attendance before completion of treatment	142	159	301	232	28	260
Ceased attendance after completion of treatment, but before final tests	43	51	94	160	48	208
Discharged after completion of treatment and observation	65	30	95	158	13	171
Number of doses of Salvarsan substitutes	4,766					
Number of patients under treatment or observation on January 1st, 1924	129	374	503	393	189	582

During the year a special clinic was started at 10a, Aston Street (one of the Maternity and Child Welfare Centres) to which cases found among women and children attending the various Centres in the town are now being referred, instead of being sent to the Hospitals. From October 3rd until the end of the year 14 mothers and 27 babies were treated at this special clinic.

It is impossible to indicate from the above figures what the actual prevalence of venereal disease in Birmingham was during 1923. Very few doctors now treat new cases of syphilis in their private practice among the working classes—the figures, therefore, for syphilis represent fairly the prevalence of the disease.

It is almost certain, however, that the figures for Gonorrhœa are very far from representing the incidence of this disease in the City. The disparity between the number of new cases of Gonorrhœa in females compared with that in males indicates very clearly that our present system either does not attract women patients or that in many cases the type of the disease is thought by the patient so mild as not to call for active treatment. Probably the latter is the main reason—if it is, then the campaign among women for enlightenment as to the need of thorough treatment wants to be continued and extended, for many women suffer severely in later life from the results of gonorrhœal infections, including sterility.

During 1923 the cost of the Venereal disease Clinics was as follows :—

COST OF VENEREAL DISEASES SCHEME FOR YEAR ENDING 31ST DECEMBER, 1923.

	£	s.	d.
General Hospital Clinic	4,166	19	4
Skin and Urinary Hospital Clinic	1,245	1	2
Women's Hospital Clinic	446	18	0
Cleveland House, Wolverhampton, Clinic	49	17	10
Aston Street Clinic	86	7	9
Dr. E. W. Assinder	417	14	3
Cost of Salvarsan	897	4	8
Cost of Gonococcal Vaccine	104	10	0
Bacteriological Laboratory	457	10	0
Grant, N.C.C.V.D.	250	0	0
Stationery and other expenses	67	3	10
	£8,189	6	10

DETAILED EXPENDITURE OF CLINICS.

	General Hospital.		Skin and Urinary Hospital.		Women's Hospital.		Aston Street.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Medical officers	1,368	10 7	264	14 2	231	18 0	25	4 0
Pathologists	262	10 0	125	6 0			—	
Salaries of orderlies, nurses, etc....	667	1 4	256	0 0			8	2 0
Clerical and administrative salaries	252	12 5	75	0 0			—	
Provisions for officers	187	1 9	—				—	
Rent, rates, taxes, light, etc. ...	216	17 6	417	10 0			5	14 0
Drugs	551	4 8	100	0 0			24	2 6
Dressings	50	12 10	—		215	0 0	—	
Apparatus	176	4 11	—				—	
In-patient days	152	10 3	4	5 0			—	
Stationery, printing and postage...	17	3 6	2	6 0			—	
Laundry (officer's)	43	7 7	—				—	
Building alterations	139	6 6	—				—	
Furniture	17	18 0	—				23	5 3
Employers' liability insurance ...	11	7 10	—				—	
Sundries	52	9 8	—				—	
Totals ...	£4,166	19 4	1,245	1 2	446	18 0	86	7 9

CANCER.

There were 1,092 persons died of Cancer in Birmingham during 1923.

For comparative purposes the following table relating to Cancer statistics is inserted:—

		Total Cancer Deaths in Birmingham.		Cancer Death Rate. Birmingham. England & Wales.	
1912	...	791	...	.93	1.02
1913	...	893	...	1.02	1.06
1914	...	773	...	.88	1.07
1915	...	885	...	1.00	1.12
1916	...	897	...	1.00	1.17
1917	...	912	...	1.02	1.21
1918	...	883	...	1.02	1.22
1919	...	935	...	1.01	1.14
1920	...	1,014	...	1.12	1.16
1921	...	1,020	...	1.12	1.21
1922	...	1,090	...	1.18	1.23
1923	...	1,092	...	1.17	—

On the next page will be found details as to the age and sex of the persons who died of Cancer.

On October 26th the following report was submitted to the Public Health Committee:—

TO THE PUBLIC HEALTH COMMITTEE.

MR. CHAIRMAN, LADIES, AND GENTLEMEN—

WHAT CAN BE DONE BY THE PUBLIC HEALTH COMMITTEE IN REGARD TO THE CANCER QUESTION.

On September 28th the Public Health Committee passed the following Resolution:—

“ That the Medical Officer of Health be requested to advise the Committee as to whether in his opinion they can usefully take steps in regard to the treatment of Cancer, and if so, what? ”

In the discussion which took place at the meeting of the Committee anxiety was expressed that the Public Authority should take some part, not only in investigation and research into the prevention of Cancer, but also in methods of treatment, and that for this purpose a clinic might possibly be inaugurated where the sufferers could obtain the best treatment available.

With these general sentiments I agree most cordially, but with one proviso, viz., that there should be some prospect, however remote, of improving the present condition of even a few of the sufferers.

DEATHS FROM CANCER IN 1923.

Ages.	Lip, Tongue, Palate, Jaw.			Pharynx, Esophagus, Stomach, Liver.			Peritoneum, Intestine, Rectum.			Female Organs of Reproduction.			Breast.			Skin.			Other Organs.			Total.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1 —	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	2	—	—	3	—	3
5 —	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10 —	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1
15 —	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	3	2	1	3
20 —	—	—	—	—	—	—	—	—	—	1	1	2	—	—	—	—	—	—	—	1	1	—	2	2
25 —	—	—	—	4	3	7	3	—	3	10	10	2	—	2	2	—	—	—	6	1	7	13	16	29
35 —	1	—	1	8	10	18	8	8	16	15	15	2	11	13	1	1	1	2	8	4	12	28	49	77
45 —	19	—	19	31	25	56	24	19	43	28	28	—	35	35	2	—	—	2	30	17	47	106	124	230
55 —	27	—	27	59	35	94	37	36	73	21	21	—	26	26	2	1	1	3	54	18	72	179	137	316
65 —	21	2	23	57	51	108	31	40	71	23	23	—	21	21	2	1	1	3	37	15	52	148	153	301
75 —	1	2	3	12	22	34	18	15	33	9	9	—	18	18	2	—	—	2	11	7	18	44	73	117
85 —	—	1	1	1	—	1	1	3	4	—	1	1	—	3	3	1	1	2	—	1	1	3	10	13
All Ages	69	5	74	172	146	318	122	121	243	—	108	108	2	116	118	11	4	15	150	66	216	526	566	1092

PREVALENCE OF CANCER IN BIRMINGHAM.

Over 1,000 persons have died in Birmingham during each of the past three years from Cancer. During these three years the ages of those who died were as follows:—

Under 20	...	...	...	...	27
From 20—25	...	...	...	...	15
" 25—35	...	...	...	...	51
" 35—45	...	...	...	...	258
" 45—55	...	...	...	...	627
" 55—65	...	...	...	...	965
" 65—75	...	...	...	...	835
Over 75	...	...	...	...	349

This indicates that 3 per cent. of the persons who died from the disease were under 35 years of age, while 97 per cent. were over 35 years, the great bulk of the mortality occurring between 45 and 75 years of age.

The incidence of death from Cancer in Birmingham per 100,000 persons living at different age groups was as follows for the three years 1920, 1921, and 1922:—

	Deaths per 100,000 persons living at each age.				
Under 20	3
From 20—25	6
" 25—35	12
" 35—45	65
" 45—55	197
" 55—65	513
" 65—75	850
Over 75	1,009
All ages	113

HAS CANCER INCREASED IN BIRMINGHAM?

Unfortunately, statistics are not available for the areas which were added to the City in 1889 and 1911. But for this disease it appears to be competent to compare the figures for the present enlarged area with those for the smaller central area in years gone by, as the distribution over the City among rich and poor is fairly uniform. For the three years ending 1922 the incidence in the central wards was 113 per 100,000 at all ages, while for the suburban areas it was 110 per 100,000 living.

To answer the question as to whether Cancer has increased I have taken the number of deaths in 1880, 1881, and 1882, and compared them with the deaths occurring subsequently.

BIRMINGHAM.

DEATH-RATE FROM CANCER PER 100,000.

	Death-rate.	Increase per cent.	Proportion of population over 45 per 1,000 of total population.	Increase per cent.
1880-82	47	—	160	—
1890-92	63	34	166	4
1900-02	73	16	171	3
1910-12	90	23	191	12
1920-22	114	27	232	21

It must, however, be obvious from the table showing the mortality at different ages that if the number of people now living at ages over 45 years in any given population is greater now than in 1881 the deaths from Cancer will be more numerous. Similarly, as more women die from Cancer than men, if the proportion of women to men is now greater than in 1881, there will appear an increase due to this cause. If we make a correction for these two factors, then our present Cancer-rate should be 80 per 100,000 persons instead of 114. In 1881 the comparable rate was 47 per 100,000 of the population. The increase, therefore, is represented by the figures 47 in 1881 and 80 in 1921, that is, an increase of 70 per cent.

IMPROVED DIAGNOSIS.

Not only have Cancer statistics been increased by the fact that, with the improved general death-rate, the number of people who live to the Cancer age has increased, and by the greater number of women in the population, but there has always been a fear that some cases of Cancer have either been overlooked or that they have been wrongly diagnosed as Cancer. This is to say, we have been afraid of our facts. It is certain, however, that improved diagnosis has not made the difference between the rate of 47 per 100,000 in 1881 and 80 in 1921. There can, therefore, be no doubt that the disease is increasing in frequency.

WHAT IS CANCER?

To the layman Cancer is a perfectly definite disease, viz., a tumour with a peculiar character, which causes it to grow and spread and ultimately to cause death. To the expert pathologist these tumours are of numerous varieties and of all degrees of malignancy. To the physician and surgeon other difficulties arise in the diagnosis of Cancer. In a large number of instances he cannot see or feel the growth in its early stages, even in those cases where the patient consults him early in the disease. In many instances the disease is located in one of the deep-seated internal organs and often a serious operation may be needed to confirm what are mere suspicions. In former times these major operations were out of the question—they were quite impossible. Modern surgical methods have fortunately come to be so safe that it is possible now to operate for the purpose of mere diagnosis and in this way possibly our statistics have become more accurate.

Suffice it here to draw attention to the main fact that Cancer is in its early stages by no means easily diagnosed by the clinician, and, further, when the growth has been removed and sent to the most skilled pathologist there will often be cases in which a difference of opinion will arise as to whether the tumour is an innocent one or one of great malignancy.

WHERE CANCER OCCURS.

For a number of years the deaths in Birmingham have been classified in relation to the part of the body involved. The figures can only be regarded as relatively accurate, for it must often be difficult in the absence of a post-mortem examination to register in the death certificate the primary seat of the disease with any great amount of accuracy.

The relative prevalence of Cancer in different parts of the body has been as follows:—

Location of Cancer.						Proportion of deaths to 1,000 deaths from Cancer, 1920-22.		
						Males.	Females.	Persons.
Buccal cavity	...	...	...	...	...	126	11	64
Stomach, liver, etc.	...	...	...	...	...	333	239	282
Peritoneum, intestines	...	...	...	...	...	248	200	222
Female organs of generation	...	...	...	...	...	—	216	117
Breast	...	...	...	...	...	1	215	117
Skin	...	...	...	...	...	8	6	7
Other organs	...	...	...	...	...	284	113	191
						1,000	1,000	1,000

DOES BIRMINGHAM DIFFER IN ITS CANCER INCIDENCE FROM OTHER LARGE TOWNS OR RURAL DISTRICTS?

District.						Mean Cancer Death-rate per 1,000, 1919-1921.
London	...	...	...	...	...	1.27
Glasgow	...	...	...	...	...	1.10
Birmingham	...	...	...	...	...	1.08
Liverpool	...	...	...	...	...	1.06
Manchester	...	...	...	...	...	1.25
Leeds	...	...	...	...	...	1.18
Sheffield	...	...	...	...	...	1.07
Warwickshire	...	...	...	...	...	1.09
Worcestershire	...	...	...	...	...	1.14
Devonshire	...	...	...	...	...	1.40
Dorsetshire	...	...	...	...	...	1.33
Lincolnshire	...	...	...	...	...	1.21
Norfolk	...	...	...	...	...	1.50
Cumberland	...	...	...	...	...	1.22
Westmoreland	...	...	...	...	...	1.56

The following figures are extracted by Sir George Newman from Dr. Hoffman's "The Mortality from Cancer throughout the World."

						Death-rate per million from Cancer.				
						1908.	1909.	1910.	1911.	1912.
Switzerland	...	...	...	...	...	1,280	1,267	1,235	1,236	1,200
Holland	...	...	...	...	...	1,035	1,033	1,065	1,089	1,097
England and Wales	...	...	...	...	...	931	962	967	992	1,023
Ireland	...	...	...	...	...	756	798	835	817	852
U.S.A. Registration Area	...	...	...	...	...	715	738	762	743	770
Australia	...	...	...	...	...	696	728	733	740	761
Italy	...	...	...	...	...	645	642	656	668	647
Japan	...	...	...	...	...	621	656	653	669	

Were accurate and comparable statistics available, it is probable that much wider differences than indicated above would be found in the mortality rates from Cancer among the different races in various parts of the world.

It will have been noticed that there are wide differences in the incidences of fatal Cancer in various parts of the body between males and females. For example, during the past three years 181 deaths were registered in Birmingham among males and 18 among females from Cancer of the lip, tongue, palate, and jaw. In 1921 the Registrar-General records for the same situations 2,482 deaths of males and 358 deaths of females. In the same report he records 4,426 deaths of males and 3,709 deaths of females from Cancer of the Stomach, also 1,791 deaths of males and 2,571 deaths of females from Cancer of the gall bladder.

The practical deduction from these and other statistics is that the incidence of Cancer varies in extent among different people and among the same people as between men and women. As to the cause of this varying incidence opinion differs in the widest degree, for there is no definite proof, but probably in the investigation of this problem lies one of the keys to the causation of Cancer.

CAUSE OF CANCER.

There is no existing evidence as to why Cancer occurs. Like many other diseases, there may be a combination of conditions which produce Cancer, such as a special stimulus in one form or another in a "constitution" which is susceptible. The majority of people (8 to 1) escape this combination. We have no information as to what are the conditions necessary for its occurrence. There is one condition which is definitely known, and in regard to which an enormous amount of experience exists, and which can be tested by animal experiments. I refer to those cancerous conditions which arise from long-standing irritation of tissues.

Workers in coal tar, paraffin, soot, arsenic, sugar, etc., are liable to Cancer in the parts exposed to these substances. Similarly, in certain cold countries where the custom exists of carrying charcoal braziers in close contact to the abdominal wall Cancer occurs in this very unusual site. Arguing from this occurrence the prevalence of mouth Cancer in men and women has been attributed to chronic irritation from smoking or from defective teeth, and the breast Cancer in women to the pointed "bones" used in the manufacture of corsets. But it is difficult to suggest this theory as accounting for all Cancers. It is equally difficult to explain why so many escape who would appear to have been subject to long-standing irritation.

WHAT IS BEING DONE TO FIND THE CAUSE AND CURE?

There seems to be no getting away from the fact that the increase in the prevalence of Cancer is real and not due entirely to statistical fallacies. Cancer is one of the few diseases in which an increased prevalence is occurring. What is then being done to find the cause and the cure?

Without detailing all the various Institutions now engaged in Cancer research, I would say that throughout the civilised world probably more money is being expended on Cancer research than on any other subject; indeed, one might almost say that the amount is as great as that expended on all other diseases combined.

In this country the Cancer Department of the Middlesex Hospital, London, was founded in 1792. The Imperial Cancer Research Fund was established in 1902 on a broad and scientific basis. Many of the large hospitals in this country have special departments for Cancer investigation. Recently, the Ministry of Health has appointed an important and representative Committee, with the following terms of reference:—

"To consider available information with regard to the incidence, causation, prevention, and treatment of Cancer, and to advise as to the best method of utilising the resources of the Ministry for the study and investigation of these problems."

In America and on the Continent similar organisations exist for Cancer Research.

The most recent organisation is a special sub-committee of the Health Committee of the League of Nations, which has been appointed to investigate the causes of the differences in the incidence of Cancer in certain regions of the body in the three countries, England and Wales, Italy, and Holland.

In addition to these investigations much is being done in Cancer Hospitals and Cancer Departments of general hospitals all over the world. Many special varieties of treatment are being tried which could not be attempted in the homes of the sufferers, and enormous sums of money are being expended on these methods.

The one outstanding feature in treatment is the almost universal belief among the medical profession that the Cancer patient's best, if not his only, chance of escape from death is early recognition of the true nature of the disease and speedy and complete removal of the diseased area. There are a large number of records of persons who have had true Cancer removed, and who have lived to old age and died from other diseases. A much larger number have had life prolonged for some years by early removal.

But alas, these cases of early removal form a minority of the total number affected. The patient in these cases has to seek surgical advice early. Cancer is often painless to begin with and quite unrecognisable in many situations by the patient. In other cases there is great difficulty in diagnosing early cases, even when medical assistance is sought. It must, therefore, be obvious that the good advice to seek attention early in all suspected cases and have the diseased part removed will only be applicable in a relatively small number of cases.

WHAT ACTION IS OPEN TO THE PUBLIC HEALTH COMMITTEE?

(1). It seems that distribution of information to the public as to when they should suspect Cancer, and what they should do to confirm such suspicion is at present the most important step.

The Central Midwives Board has issued a leaflet to all Midwives in the country, as they have special opportunities of advising mothers.

Some such leaflet could be widely distributed by our Health Visitors and others in Birmingham. It might also be given out at the large hospitals and infirmaries.

(2). As to the desirability of instituting further research, I feel inclined to wait until the Committee of the Ministry of Health ask for research in some particular direction. We might quite properly offer to take part in any general investigation which they required to be carried out.

In this direction I might say that I wrote some weeks ago to the British Empire Cancer Campaign suggesting certain methods of investigation which needed to be carried out in different countries.

If your Committee decide that some inquiry should be made it would be well before determining on the scope of the inquiry to consult the Ministry of Health and to enlist the services of the medical profession in Birmingham. It is possible to expend large sums without result if care is not taken. There are, however, several minor methods which might with profit be carried out, such as the obtaining of accurate information as to the nature of the cancer in every case of operation and death, and some information as to the life of the patient. In my view this ought to be done for the country as a whole rather than for one locality.

(3). There still remains the question as to whether Cancer sufferers are sufficiently provided for in Hospitals and in Homes for the Dying, but this is rather outside the scope of the preventive functions of the Public Health Committee.

Since the issue of the above report the Public Health Committee have appointed a Sub-Committee to make suggestions as to how Cancer can be dealt with.

CEREBRO-SPINAL FEVER.

The following table indicates the prevalence of this very dangerous disease during the past seven years :—

Years.	Cases notified.	Died.	Fatality per cent.
1917	29	21	72
1918	16	10	62
1919	14	9	64
1920	25	18	72
1921	9	7	78
1922	18	16	89
1923	4	2	50

The following are some of the facts about the four cases occurring in 1923 :—

Date of notification.	Sex and age.	Where treated.	Diagnosis verified bacteriologically.	Result.
1. May 17th	... M. 17	... Hospital	... Yes	... Died on the 15th day.
2. May 30th	... M. 14	... Hospital	... Yes	... Recovered.
3. Sept. 14th	... M. 6	... Hospital	... Yes	... Died on the 8th day.
4. Oct. 25th	... M. 4	... Hospital	... Yes	... Partial recovery, facial paralysis etc.

ACUTE ANTERIOR POLIOMYELITIS (INFANTILE PARALYSIS).

This is an infectious disease which attacks some parts of the central nervous system. Like some other diseases in this group little is known as to the way in which the disease is spread. There is, however, sufficient evidence to make quite certain that the infection is spread from one child to another, although possibly this is through the medium of "carriers" who themselves do not suffer.

The year 1923 was notable for having a large outbreak in September, October and November.

Year.	Cases Notified	Died.	Complete recovery (6 months).	One or more limbs paralysed.
1917	11	2	6	3
1918	4	—	2	2
1919	14	1	6	7
1920	1	—	1	—
1921	11	4	1	6
1922	6	—	1	5
1923	33	3	1	29

The record of recovery or paralysis was made at an interval of six months after the disease was reported.

It is almost certain that at least 25 children are left as more or less complete cripples, due to this outbreak.

The following notes by Dr. Davison are printed in continuation of similar notes for the cases in previous years :—

ACUTE ANTERIOR POLIOMYELITIS, 1923.

No.	Notified.	M or F.	Age.	Treated in Hospital.	Condition of Patient in June, 1924.
1	Jan. 20	F.	13	H	Under treatment. Back muscles weak requiring side splint. Paralysis of both legs (left more marked). Iron splints used. Patient able to stand upright unaided.
2	Aug. 4	F	3 mos.	H	Under treatment. Left arm in splint. Good grip and movement at wrist. Slight movement at shoulder. No movement at elbow.
3	„ 23	M.	1½	H	Under treatment. Paralysis both legs, improving. Back weak, able to sit up. Right arm weak.

Acute Anterior Poliomyelitis (continued).

4	Aug. 23	F.	5	H	Under treatment. Left leg muscles wasting, free movement. Right leg in splint, paralysis from knee. Patient can walk with aid of cast.
5	" 24	M.	16	H	Under treatment. Right leg splint. No movement of ankle. Slight flexion of knee. Some movement at thigh. Patient gets about on crutches.
6	Sept. 3	M.	1½	H	Under treatment. Left arm in splints. Good movement below elbow. Weak flexion of elbow. Cannot raise hand to head.
7	" 17	M.	7	H	Under treatment. Both legs paralysed. Back weak. Patient still in horizontal position.
8	" 18	F.	11	H	Under treatment. Right leg in splints. Paralysis at ankle. Fair movement knee and thigh.
9	" 21	F.	3	H	Under treatment. Paralysis left leg. No movement at ankle. Toes slight movement. Good movement knee. Splint.
10	" 22	F.	1	H	Under treatment. Drags left foot when walking. Wasting of calf muscles. Progressive improvement.
11	" 22	M.	2	H	Under treatment. Paralysis left shoulder. Grip good and fair movement at elbow. Arm in splint.
12	" 28	F.	1½	H	Under treatment. Paralysis right leg. Wasting of calf muscles. No movement at ankle.
13	Oct. 4	F.	1	H	Not under treatment. Left leg weak. Drags right leg when walking.
14	" 8	M.	1½	H	Under treatment. Paralysis below right knee. Leg in splint. No movement of ankle. Slight movement of toes.
15	" 10	M.	1½	H	Under treatment. Paralysis left leg below knee. Leg in splint. Weakness of ankle and pain in movement.
16	" 12	F.	7	H	Under treatment. Paralysis of left leg.
17	" 13	M.	1½	H	Under treatment. Wasting of left leg with weakness. Patient beginning to toddle.
18	" 15	M.	1½	H	Under treatment. Cannot raise right arm. Paralysis both legs. Slight movement at thighs. No movement at knee or ankle.
19	" 17	M.	3	H	Under treatment. Both legs in splints. Paralysis left leg from thigh. Right leg movement, knee and ankle.
20	" 18	M.	5	H	Under treatment. Patient in frame. Paralysis of both arms, left improving. Neck muscles weak.
21	" 19	F.	5	H	Under treatment. Right arm biceps and triceps weak. Unable to raise hand to head. Wasting of thumb muscles.
22	" 22	F.	1½	H	Complete recovery.
23	" 23	F.	5 mos.	H	Under treatment. Complete paralysis of right leg from hip.
24	" 25	M.	2	H	Right leg still weak. Slight drop foot. Wasting of calf muscles.
25	" 27	F.	7	H	Under treatment. Right leg weak. Wasting of calf muscles.
26	" 29	F.	3	H	Under treatment. Both legs in splints. No movement right leg. Left leg very weak. Unable to walk.
27	" 30	M.	2	H	Under treatment. Slight weakness of ankle. Walks with limp.
28	Nov. 3	M.	2	H	Under treatment. Paralysis of right shoulder. Movement at elbow and good grip. Both legs weak. Flat foot.
29	" 8	F.	1½	H	Under treatment. Right arm general weakness, more marked at shoulder (in splints). Both ankles weak.
30	" 22	F.	9 mos.	H	Died 26th November, 1923.
31	" 26	M.	1	H	Died 7th April, 1924. (Pertussis). Left leg paralysed at time of death.
32	" 30	M.	1½	H	Under treatment. Left leg weak, drags left foot.
33	Dec. 11	F.	4	H	Died 5th April, 1924. (Pneumonia). Paralysis of both legs. Improving at time of death.

ACUTE ENCEPHALITIS LETHARGICA.

During 1923 there were 29 notified cases of this disease—more than in any previous year.

		Cases.		Deaths.		Fatality per cent.
1919	...	11	...	5	...	45.5
1920	...	18	...	7	...	38.9
1921	...	25	...	8	...	32.0
1922	...	12	...	4	...	33.3
1923	...	29	...	12	...	41.4

Not only was this a very fatal disease but it was one of the most seriously disabling diseases.

Of the 29 cases notified, 12 died and only four had made a complete recovery by the end of six months after the attack.

The condition of the other patients after the lapse of six months was as follows :—

Case No.	Date of Notification.	M. or F.	Age.	Treated in Hospital.	Result.
3	Mar. 2	F.	30	H	Memory impaired, severe headaches, can go to sleep at any time, irritability of temper, easily tired.
4	Mar. 7	M.	42	—	Memory impaired. Slow intellect. Sciatica since illness. Twitching in sleep. Sight slightly impaired. Otherwise general health good, and getting stouter.
5	Mar. 8	F.	20	—	Very irritable temper. Trouble in sleeping. Muscular weakness with occasional stiffness of legs. Memory impaired. Has developed epileptic fits.
6	Mar. 13	M.	13	H	Occasional attacks of drowsiness and is mentally dull.
7	Mar. 17	M.	34	H	Very irritable temper. Pains in stomach and body. Muscular weakness of legs. Easily tired. Cannot walk far and cannot read a book for any considerable period. Twitching in sleep and tremors on rising in morning. Putting on flesh.
8	Mar. 19	F.	27	—	Eyesight very weak. Cannot sew or read for long without blurring. Tendency to go off to sleep in day time.
9	Mar. 19	M.	32	—	Wife reports not quite the same as before. Occasionally has dazed look in eyes. Twitches unconsciously in sleep. Much quieter than before. Getting stouter.
11	Mar. 24	M.	47	—	General condition poor. Speech slow and hesitating. Right facial paralysis. Right arm very weak. Legs very weak. Cannot read with comfort.
13	Apr. 23	F.	43	H	Memory poor. Severe headaches. Sleeps very soundly Twitching during sleep. Patient afraid to go out alone. Range of vision altered from near sight to normal.
14	May 18	F.	17	H	Unable to write. Disobedient. Untruthful. Wanders about neighbourhood despite parents' efforts to keep her under observation.
18	Sept. 8	F.	1½	—	Legs weak. Stumbles frequently and very nervous.
22	Oct. 6	M.	30	H	Very quiet. Muscular tremors. Unable to use right hand. Unable to work.
24	Oct. 24	F.	15	H	General muscular weakness and very easily tired.

BRONCHITIS AND PNEUMONIA.

The mortality from both these diseases was low during the year as indicated in the following table.

DEATH-RATES FROM BRONCHITIS AND PNEUMONIA.

		BRONCHITIS.		PNEUMONIA.	
		Birmingham.	England and Wales.	Birmingham.	England and Wales.
1901	...	1.80	1.37	1.55	1.15
1902	...	1.64	1.32	1.46	1.41
1903	...	1.46	1.11	1.32	1.22
1904	...	1.76	1.25	1.49	1.28
1905	...	1.43	1.14	1.37	1.30
1906	...	1.38	1.04	1.32	1.22
1907	...	1.49	1.22	1.47	1.35
1908	...	1.47	1.10	1.22	1.19
1909	...	1.47	1.15	1.36	1.30
1910	...	1.24	0.96	1.15	1.11
1911	...	1.25	1.00	1.16	1.04
1912	...	1.26	1.08	1.20	1.02
1913	...	1.20	1.06	1.13	1.02
1914	...	1.26	1.08	1.24	1.08
1915	...	1.37	1.44	1.28	1.36
1916	...	1.29	1.25	1.13	1.06
1917	...	1.01	1.25	0.94	1.14
1918	...	1.22	1.23	1.46	1.65
1919	...	1.39	1.24	1.10	1.05
1920	...	1.17	1.01	1.11	0.99
1921	...	0.87	0.89	1.04	0.92
1922	...	1.17	1.07	1.08	1.07
1923	...	0.96	—	0.89	—

The mortality in the various areas of the City was as follows:—

Central Wards	...	...	2.84 per 1,000
Middle ring of wards	...	...	1.75 „ „
Outer „ „ „	...	...	1.22 „ „

It is probable that something might be done to make better provision in Hospitals for the treatment of the very acute cases than is available at present.

SUICIDES, 1912—1923.

By	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.
Poison	11	32	19	5	6	5	5	9	20	9	14	17
Asphyxia	7	6	2	2	5	6	6	4	6	5	18	28
Hanging, Strangulation	16	14	18	12	9	11	8	24	17	22	18	15
Drowning	8	10	10	8	9	6	10	26	22	30	32	34
Firearms	4	5	6	3	3	6	8	2	6	3	5	2
Cutting or piercing	12	23	17	13	12	17	16	28	18	18	16	21
Jumping from high places	2	2	5	2	1	2	6	4	1	4	6	6
Crushing	3	8	6	1	1	1	1	1	6	1	3	4
Other suicides	—	—	—	1	—	1	—	—	2	1	—	3
Total	63	100	83	47	46	55	60	98	98	93	112	130

It will be noted that during the past two years some increase in cases of suicide has occurred. The methods of committing suicide which have increased are those by asphyxia (mostly gas poisoning) and drowning.

The increased restrictions on the sale of poisons have not prevented some increase in the use of poisons by suicides. On the other hand the number of cases of suicide by fire-arms has shown no increase. In this case it is now difficult for a suicide to obtain a weapon owing to the severe regulations regarding the possession of arms.

DEATHS IN PUBLIC INSTITUTIONS.

Of the 10,248 deaths in 1923, 3,723 occurred in institutions :—

2,126 in Poor Law Institutions.

348 in publicly provided Fever Hospitals, etc.

236 in publicly provided Sanatoria.

990 in other hospitals charitably supported.

23 in Homes.

DISEASES OF ANIMALS COMMUNICABLE TO MAN.

(REPORT BY MR. BRENNAN DE VINE, F.R.C.V.S., VETERINARY SUPERINTENDENT).

The following is a list of the Contagious Diseases which are scheduled under the Diseases of Animals Acts :

Anthrax;	Cattle Plague;
Foot and Mouth Disease;	Pleuro-Pneumonia;
Parasitic Mange of Horses;	Sheep Pox;
Rabies;	Epizootic Lymphangitis;
Sheep Scab;	Glanders and Farcy;
Swine Fever;	Epizootic Abortion of Cattle.

It is the duty of the Local Authority to carry out the work in connection with these diseases when they occur in their district.

In connection with this work, the following visits have been made during the year by Inspectors :—

Railway Stations	...	...	...	...	...	...	...	2,166	visits
Markets	...	...	...	...	...	...	...	502	"
Private premises	...	...	...	...	...	...	...	951	"
Other visits (cattle-yards, etc.)	...	...	...	...	...	...	...	894	"

ANTHRAX.

There were several suspected cases of anthrax reported to us in the city area. In each case we took blood specimens, which were examined microscopically. In two cases we found anthrax, which was confirmed by the Ministry of Agriculture. In one case the beast was found dead in a field at Moseley. The usual precautions were taken with respect to the detention of in-contact animals, and the disinfection of the premises. The other animal was found dead in a truck at Bordesley Cattle Siding. It was removed by the owner to the city meat market to be dressed and reported to us. On examination of the blood, we found that it had died from anthrax. Both carcasses were removed to Montague Street for destruction.

FOOT AND MOUTH DISEASE.

During the latter part of 1923 this country had the largest outbreak of Foot and Mouth Disease that has been experienced here for many years.

The disease was first detected in Lancashire at the end of August, and has spread over the country. The most active centre of the disease has been in Cheshire and Shropshire. During the autumn many cattle are fed in that district for the Christmas markets, and owing to the restrictions in connection with Foot and Mouth Disease, there was a great accumulation of fat cattle in the district which could not be moved, and for these reasons the Ministry of Agriculture made a special Order known as the North Midlands Order, which allowed animals to be moved from the infected area of Shropshire and Cheshire into some of the larger towns, including Birmingham, for immediate slaughter. In connection with the provisions of this Order, Birmingham authorised a number of slaughterhouses in the city for the reception of these animals.

Up to December 31st the following animals were received into Birmingham under this Order :—

Beasts	...	...	...	...	...	...	...	...	33
Calves	...	...	...	...	...	...	...	...	17
Sheep and Lambs	...	...	...	...	...	...	...	...	749
Pigs	...	...	...	...	...	...	...	...	728
									<hr/> 1,527 <hr/>

As there were outbreaks of Foot and Mouth Disease in the surrounding counties, Birmingham was included in the infected area. This necessitated the granting of licences for the movement of cattle, sheep, pigs and goats in the area. The many Foot and Mouth Disease Orders which were issued greatly interfered with the normal supply of our markets. The result was that some days there was an abnormally high number of cattle, and other days scarcely sufficient to keep the Markets going. Often there were more animals here than could be slaughtered immediately on arrival, and it was found that the lairs at our city Meat Market were not sufficiently large to accommodate the animals coming in. To avoid the grave risk of keeping these animals at our Railway Sidings, the larger lairs occupied by the Wholesale Meat Traders near the Market were authorised by the Markets and Fairs Committee as special lairs to be used for cattle awaiting slaughter at the city abattoirs.

During the time the Foot and Mouth Disease was prevalent it was necessary for us to inspect all animals coming into the city area, and to give much increased inspection in our markets, lairs, etc. In addition to this we have had to licence all in-coming animals from other infected and free areas as well as for movement within the city.

On the 12th December a case of Foot and Mouth Disease was found to exist at Mr. Green's Farm, Church Road, Yardley. There were in all 13 cattle, 1 calf and 11 pigs on the farm. The Ministry confirmed the outbreak, and all the affected and in-contact animals were immediately slaughtered and the carcasses destroyed.

The following is a copy of the official return for the whole country for the year :—

FOOT AND MOUTH DISEASE.

				Outbreaks confirmed in the country.	Animals slaughtered as diseased or exposed to infection.
Total for 52 weeks, 1923	...	...	...	1,756	60,478
Corresponding period in 1922	...	...	...	1,140	55,599
"	"	1921	...	44	3,085
"	"	1920	...	93	11,665

PARASITIC MANGE.

There were 10 outbreaks of Parasitic Mange affecting 11 horses. In 1922 there were 11 outbreaks affecting 22 horses. Of the 11 animals affected the disease was so advanced in one case, and the animal was in such poor condition, that the owner decided to have it destroyed. The other 10 cases were cured, and there was no outstanding case at 31st December.

While the affected animals were being treated, they were detained and kept in their stables under the Parasitic Mange Order, and were regularly visited by your Veterinary Inspectors, this necessitating 73 visits.

The progress made in the eradication of Parasitic Mange in horses steadily continues, as will be seen by the following table:—

PARASITIC MANGE.

			Outbreaks.	Animals attacked.
Year 1923	...		10	11
" 1922	...		11	22
" 1921	...		25	36

RABIES.

A number of suspected cases in dogs have been submitted to us, but we have pleasure in reporting that there has been no case of Rabies in the city, and the whole of the country has remained free from Rabies during the year.

SHEEP SCAB.

There was no confirmed case of Sheep Scab in the city and during the year your Inspectors superintended the dipping of 575 sheep on 17 farms within the city area.

CONFERENCE.

In connection with the Sheep Scab Order, a Conference of representatives of neighbouring county Local Authorities—namely: Gloucestershire, Herefordshire, Staffordshire, Warwickshire, Worcestershire, and Birmingham—was held at the Council House on April 13th. This Conference was convened to consider the possibility Local Authorities represented here adopting uniform regulations made under Article 12 of the Sheep Scab Order, 1920.

We have in Birmingham a Double Dipping Order—this was introduced with a view to keeping the area free from Sheep Scab. It was pointed out at the Conference that if there is no Scab in the area, it is not necessary to have a Double Dipping Order, and if any Scab is detected among sheep then the Ministry of Agriculture regulations authorise the enforcement of the Double Dipping of infected sheep. With a view to falling in with the wishes of the surrounding Local Authorities in the matter, and give facilities for the movement of sheep over the borders of Birmingham, it was agreed with the other members of the Conference to introduce the Single Dipping Order into Birmingham for home sheep or sheep from the area included in the other counties represented there, and for the Double Dipping of imported sheep from infected areas.

SWINE FEVER.

During the year 951 visits have been paid to pig keepers' premises, and 114 cases of dead pigs have been reported to us. With a view of controlling the spread of Swine Fever, post-mortem examinations are systematically made on all pigs which die in the city area, and if there are any of these showing symptoms of Swine Fever, we report it to the Ministry of Agriculture.

The following return shows the cases of suspected Swine Fever reported by us to the Ministry of Agriculture during the year as compared with the cases reported in 1922:—

				Suspected outbreaks.	Cases confirmed by Ministry.	Number of pigs infected or exposed to infection.
1923	...	...	...	16	14	330
1922	...	...	...	11	8	257

In addition to the cases of dead pigs already mentioned, 325 pigs died in transit by rail during the year as compared with 203 the previous year, and these were found dead on arrival at the following Stations:—

				1923.	1922.
Bordesley	...	...	...	108	41
Landor Street	...	...	...	113	125
Fazeley Street	...	...	...	101	35
Central Station	...	...	...	3	—
Camp Hill	...	...	...	—	1
Hockley Station	...	...	...	—	1
				325	203

During the year under review there were no suspected or confirmed cases of the following scheduled diseases in the city area:—

Cattle Plague;	Epizootic Lymphangitis;
Pleuro-pneumonia;	Glanders and Farcy;
Sheep Pox;	Rabies;
Sheep Scab;	Epizootic Abortion of Cattle.

ANIMALS (TRANSIT AND GENERAL) ORDER, 1912.

It is incumbent on the Local Authority to execute and enforce this Order, which provides for the inspection of animals being shipped for the Continent, and of those being entrained for the coast, and further provides for the disinfection of railway trucks.

During the year we examined 975 horses at the various city Railway Sidings, viz.:—

Lander Street	516
Fazeley Street	323
Bordesley	113
Snow Hill	1
New Street	22

Except in one case all the horses examined were found fit to travel by rail.

TUBERCULOSIS ORDER, 1914.

This Order was suspended during the war, and has not yet been revived by the Treasury owing to the urgent need for economy in public expenditure.

Under the Tuberculosis Order of 1914, all emaciated animals, wasters, and those giving tubercle bacilli in their milk were slaughtered, thereby removing centres of infection from other animals. Compensation under this Order was paid by the Local Authority, the market value being allowed, and the Ministry granted to Local Authorities from Government funds three-quarters of the gross compensation paid by them for animals slaughtered.

The Association of Municipal Corporations is being moved to take action with a view to re-introducing this Order. The Town Clerk of Bradford applied to Birmingham for support in bringing pressure to bear on the Ministry to take such steps as will bring about the speedy revival of the operation of the Tuberculosis Order of 1914, and so enable Local Authorities to deal effectively with the great danger to public health which arises from the supply for human consumption of milk from tuberculous dairy cattle.

The following Resolution was passed by the Markets and Fairs Committee:—

RESOLVED.—“That this Committee are strongly of opinion that the Tuberculosis Order, 1914, which was suspended during the War, should be put into operation without further delay, and that the Town Clerk be requested to communicate with the Association of Municipal Corporations to that effect, with a request that they will support the resolution passed by the Bradford City Council.”

CITY HOSPITALS.

The following statement shows the cases dealt with during the 52 weeks which constitute the statistical year:—

SCARLET FEVER.

	1923.	1922.	1921.
Under treatment at beginning of year	309	347	509
Admitted during year	1,801	2,092	2,064
Discharged	1,806	2,098	2,188
Died	40	32	38
Remaining at end of year	264	309	347

DIPHTHERIA.

	1923.	1922.	1921.
Under treatment at beginning of year	211	198	274
Admitted during year	1,401	1,088	1,300
Discharged	1,294	1,001	1,269
Died	120	74	107
Remaining at end of year	198	211	198

These figures include a certain number of cases in which the diagnosis was revised in hospital.

REPORT ON LITTLE BROMWICH HOSPITAL.
(By DR. E. H. R. HARRIES, MEDICAL SUPERINTENDENT.)

I beg to submit to you a report on the work done in this Hospital for the year ending December 31st, 1923. As in previous years the two principal diseases received for treatment have been Scarlet Fever and Diphtheria. The figures in respect of the diseases admitted are as follows:—

SCARLET FEVER.				
Remaining on December 31st, 1922	...	...	...	274
Admitted during 1923	...	...	...	1,828
Discharged during 1923	...	...	...	1,821
Died during 1923	...	...	...	40
Remaining on December 31st, 1923	...	...	...	241
DIPHTHERIA.				
Remaining on December 31st, 1922	...	...	...	213
Admitted during 1923	...	...	...	1,409
Discharged during 1923	...	...	...	1,295
Died during 1923	...	...	...	119
Remaining on December 31st, 1923	...	...	...	208

Four cases of Measles and two of Chicken Pox were admitted as such during the year. All these cases recovered. The grand total of cases admitted during the year was thus 3,243.

Of the cases sent in with a diagnosis of scarlet fever 2.7 per cent. were suffering from conditions other than scarlet fever, whilst 8.6 per cent. of the cases sent in as diphtheria necessitated revised diagnosis. The commonest revisions were from diphtheria to tonsillitis, and from diphtheria to scarlet fever.

In many of the cases of the first group considerable assistance was given by the Schick test: a number of cases sent in as diphtheria were found to be immune to diphtheria, as shown by a negative Schick reaction.

Cases of combined diphtheria and scarlet fever sent in with a notification of either disease have not been included in the above estimates of revised diagnoses.

The net number of deaths ascribable to scarlet fever after correction of diagnosis was 36, and the corrected number of deaths from diphtheria was 103.

There has been some evidence during recent months of an increased severity of type in the cases of scarlet fever admitted to hospital. During the year under consideration, four instances of the fatal toxic type of the disease occurred.

Two interesting cases of Encephalitis Lethargica were admitted: one was notified as diphtheria, and the other as scarlet fever. Both cases proved fatal in a few hours after admission, and the diagnosis of Encephalitis was confirmed in each instance by autopsy, and in one instance by sections of the brain also. The case notified as diphtheria had on admission pharyngeal paralysis with marked lethargy, and that notified as scarlet fever had on admission pharyngeal paralysis, complete facial paralysis, and flaccid paralysis of the lower limbs. In neither case was there any evidence of the disease which had been notified. A third case is also of some interest: a girl admitted with typical scarlet fever developed five days after admission Encephalitis of myoclonic type. She presumably presented an instance of double infection. This girl made a practically complete recovery except for slight dulness of intellect and slight dragging of one foot.

The Schultz-Charlton Test for Scarlet Fever.—This is an extinction test carried out with Wassermann negative serum from convalescent scarlet fever patients. The technique of injection, namely intradermal, is similar to that of the Schick test. Blanching of a small area of rash around the site of injection occurs within 24 hours if the rash tested is that of scarlet fever, but not otherwise. So far this test has proved quite reliable, and has on several occasions been of considerable value in the differential diagnosis of anomalous rashes. The serum has been prepared for us by the City Bacteriologist, Dr. Henry. More extended observations of this test are being carried out, and if its reliability is definitely proved, it will possibly be of great value to the general practitioner in the diagnosis of cases of scarlet fever.

Scarlet Fever Otitis.—In my report to you of last year some account was given of the work being done in connection with scarlet fever otitis. This work has been continued throughout the year by the visiting Otolologist, Mr. F. Brayshaw Gillespy, with very good results.

Mr. Gillespy has written the following note for inclusion in this report:—

“During the last twelve months the treatment of cases of scarlet fever and diphtheria complicated by otorrhœa has progressed on the lines described in last year’s report. Cases of Scarlet Fever Otitis have been transferred to the special Ear Ward as soon as their general condition allowed of safe removal. The bathroom of this Block can be rapidly converted into a dark room for the convenient examination of ear cases. Further, the intervening lobby between the two wards of the Block is available as an operating theatre for minor surgical procedures such as Paracentesis of the Membrana Tympani and removal of Tonsils and Adenoids.

“In the Ear Block great reliance is placed on the systematic drying out of the discharging ear. This can be done thoroughly with the aid of a head-light in the ward, or in the dark room. In those cases in which the otorrhœa is not lessening, an operation for the removal of the adenoids and the tonsils if considered infected, is undertaken if it is considered that the condition of the naso-pharynx is responsible for the chronicity of the otorrhœa. Fifty cases requiring this form of treatment last year ceased discharging on an average fifteen days after the operation for removal of adenoids alone, or for removal of both tonsils and adenoids. In all 82 cases have been treated by this method during the last eighteen months.

“It has not been our custom to operate before the fourth week of scarlet fever. Provided that the naso-pharyngeal infection is the cause of the chronicity of the discharge, a slight delay in operating until the patient is convalescent does not appear to impair the good results obtained by the method of treatment.

"Fifteen cases of acute Mastoiditis have arisen during the year requiring operation.

"In cases of otorrhœa arising during the course of diphtheria in which treatment has been unsuccessful in drying the ear, removal of tonsils and adenoids has been resorted to with successful results. In this disease several cases of persistent carriers of virulent diphtheria bacilli in their naso-pharynx have been cured by the above operation.

"Lectures on the treatment of ear disease have been given to the Nursing Staff and a high degree of skill in the nursing technique of this condition is shown in the wards of the hospital."

The Schick Test and Active Immunization of Staff.—I reported last year that all members of the nursing staff were Schick tested on admission to hospital. This procedure has been continued and extended to the ward maids. Further, since it was impossible to continue indefinitely the plan of placing only naturally Schick negative reactors in diphtheria wards owing to the fact that Schick positive Probationers could not under this arrangement nurse diphtheria it became necessary to produce active immunity amongst susceptible nurses by injections of T.A.T. mixture. At the present time, except for the newest joined Probationers, the staff consists entirely of persons who are either naturally immune to diphtheria, or in whom active immunity has been, or is being produced by T.A.T. mixture. By careful dosage based on the preliminary Schick test, anything like severe reactions have become rare, and we not only experience no difficulty in getting nurses to consent to immunization, but many of these request that the procedure may be carried out. Our Probationers are drawn largely from urban communities and only about one-third of them give positive Schick reactions on admission.

The value of discriminating the staff working in diphtheria wards by means of the Schick test may be seen from the following table:—

			No of cases notified diph. admitted to wards.	No. of cases of clinical diph. amongst nursing staff.
1921	...	No differentiation of staff by Schick test	1,301	14
1922	...	Differentiation of staff by Schick test commenced on January 28th ...	1,090	7
1923	...	Differentiation of staff by Schick test throughout year	1,409	4

Average number of nurses in staff in each year = 108.

In 1923 the four nurses who contracted diphtheria were all Schick positive reactors.

There seems to be no reason why, in future, the nursing staff should not be protected against diphtheria in the same way as they are protected against Small-Pox by vaccination.

Convalescent Hospital.—294 convalescent cases of scarlet fever were transferred from this hospital to the City Hospital, Erdington, for completion of convalescence.

CITY BACTERIOLOGICAL LABORATORY.

The following is the annual return supplied by Dr. Herbert Henry, the City Bacteriologist, for the year ending December 31st, 1923 :—

Swabs for diphtheria	...	...	...	...	...	3,834
Blood for enteric fever	...	...	...	...	...	37
Sputum for tuberculosis	...	...	...	...	...	1,819
Blood for syphilis	...	...	...	...	...	1,710
Cerebro-spinal fluid for syphilis	...	...	...	...	...	34
Films, etc., for gonorrhœa	...	...	...	...	...	123
Vaccines	...	...	...	...	...	24
Milks	...	...	...	...	...	833
Milk for tuberculosis	...	...	...	...	...	165*
Shell fish for sewage contamination	...	...	...	...	...	41
Water	...	...	...	...	...	218
Fæces	...	...	...	...	...	566
Miscellaneous	...	...	...	...	...	122
Total	...	...	...	...	...	9,526

* 266 other samples were examined at the Birmingham University.

This laboratory was established in 1921. The work has varied from time to time as occasion demanded; e.g., in 1923 an unusually large number of stools were examined for the presence of the bacillus of Enteric Fever, in connection with the small outbreak referred to on page 16.

On the whole the work has been growing, as is indicated by the following figures :—

Year.	Total samples examined.	Cost to the City.
1921	8,172	£2,756 16 0
1922	6,107	£2,643 6 2
1923	9,526	£3,119 5 4

DISINFECTION.

The houses disinfected during the year were as follows:—

After Scarlet fever	...	...	...	2,164
Diphtheria	...	...	...	1,374
Enteric fever	...	...	...	29
Tuberculosis	...	...	...	2,108
Small-pox	...	...	...	3

The following articles which had been exposed to infection were disinfected, either by steam under pressure or by formaldehyde gas:—

Beds	...	...	...	6,690	Pillows	...	...	...	8,117
Mattresses	...	...	...	2,130	Garments	...	...	...	5,803
Counterpanes	...	...	...	4,025	Boots	...	...	...	90
Blankets	...	...	...	7,799	Carpets	...	...	...	83
Sheets	...	...	...	1,899	Other articles	...	...	...	5,275
Bolsters	...	...	...	2,016					

HOUSING IN 1923.

Dire distress still exists among a large number of people who are unable to find any suitable building to live in, while a much larger number have to live under most unsatisfactory conditions in rooms which are far too small and in other ways inadequate for healthy existence.

Owing to the deficiency in the number of skilled artisans employed in Birmingham in the building trade the number of houses which otherwise might be built are not being erected. As a result the housing shortage still remains most acute, particularly among those least able to pay—the unskilled artisan class and the out-of-work class. To a greater extent than ever before, a family of children is a bar to getting an ordinary house. The result is that many families with young children are housed under the worst possible conditions of overcrowding and discomfort.

The question of demolishing the worst of the slum areas in the City and providing new houses was very carefully considered during the year. It is obvious that the effect of such re-housing would be to take away the men and materials from the erection of additional dwelling houses and thus increase rather than diminish the evils which now are so obvious. The bad houses in the slum areas include certain houses which are self-contained, and which it would be impossible to replace at the present time without causing great hardship for the moment. In the end nothing in the way of dealing with an area under Parts 1 and 2 of the Housing Act was considered possible during 1923.

The following statement is inserted at the request of the Ministry of Health:—

HOUSING CONDITIONS.

Year ending 31st December, 1923.

GENERAL STATISTICS.

Area (acres)	...	...	...	...	...	43,601
Population (1921)	...	...	...	...	...	919,444
Number of inhabited houses (1921)	...	...	...	...	...	190,459
Number of families or separate occupiers (1921)	...	...	...	...	...	203,813
Rateable value	...	...	...	...	...	£5,545,286
Sum represented by a penny rate	...	...	...	...	...	£23,105

HOUSING.

Number of new houses erected during the year:—

(a) Total	...	...	...	...	...	2,064
(b) As part of a municipal housing scheme	...	...	...	...	...	1,508

1. *Unfit Dwelling Houses.*

Inspection—(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	...	...	...	...	...	...	60,389
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	...	...	...	...	...	...	5,052
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	...	...	...	...	...	...	11
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	...	...	...	...	...	...	46,510

2. *Remedy of Defects without Service of Formal Notices.*

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	41,593
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3. *Action under Statutory Powers.*A. *Proceeding under Section 28 of the Housing, Town Planning, etc., Act, 1919.*

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	...	...	...	...	...	...	975
(2) Number of dwelling-houses which were rendered fit:—							
(a) By owners	...	...	...	...	...	...	706
(b) By Local Authority in default of owners	...	...	...	...	...	...	22
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declaration by owners of intention to close	...	...	...	...	...	...	17

B. Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	...	...	...	...	...	...	...	...	...	...	4,079
(2) Number of dwelling-houses in which defects were remedied:—											
(a) By owners	...	...	...	...	...	...	...	...	...	...	3,874
(b) By Local Authority in default of owners	...	...	...	...	...	...	...	...	...	...	Nil

C. Proceedings under Sections 17 and 18 of the Housing, Town Planning, etc., Act, 1909.

(1) Number of representations made with a view to the making of Closing Orders	...	...	...	...	...	...	...	...	...	11
(2) Number of dwelling-houses in respect of which Closing Orders were made	...	...	...	...	...	...	...	...	...	20
(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	...	...	...	...	...	...	...	...	...	1
(4) Number of dwelling-houses in respect of which Demolition Orders were made	...	...	...	...	...	...	...	...	...	8
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders	...	...	...	...	...	...	...	...	...	8

The new houses built during the last four years have been as follows:—

NEW HOUSES BUILT.

			No. of houses erected by private enterprise.	Corporation houses.	Total.
1920	...	...	244	407	651
1921	...	...	426	970	1,396
1922	...	...	382	902	1,284
1923	...	...	556	1,508	2,064
Total	...	...	1,608	3,787	5,395

The wards in which houses have been built during the last four years (1920-1923) are shown below.

			Houses erected by private enterprise.	Corporation houses.	Total.
Acock's Green	...	...	136	66	202
All Saints'	...	...	1	0	1
Aston	...	...	0	0	0
Balsall Heath	...	...	0	0	0
Duddeston and Nechells	...	...	0	0	0
Edgbaston	...	...	103	0	103
Erdington N.	...	...	108	327	435
Erdington S.	...	...	55	538	593
Handsworth	...	...	16	110	126
Harborne	...	...	64	16	80
King's Norton	...	...	71	171	242
Ladywood	...	...	0	0	0
Lozells	...	...	0	0	0
Market Hall	...	...	0	0	0
Moseley and King's Heath	...	...	186	435	621
Northfield	...	...	284	108	392
Rotton Park	...	...	12	0	12
St. Bartholomew's	...	...	0	0	0
St. Martin's and Deritend	...	...	0	0	0
St. Mary's	...	...	1	0	1
St. Paul's	...	...	1	0	1
Saltley	...	...	9	223	232
Sandwell	...	...	49	273	322
Selly Oak	...	...	72	0	72
Small Heath	...	...	11	168	179
Soho	...	...	26	0	26
Sparkbrook	...	...	2	0	2
Sparkhill	...	...	305	589	894
Washwood Heath	...	...	9	671	680
Yardley	...	...	87	92	179
			1,608	3,787	5,395

A considerable number of caravan dwellers are now installing themselves in various parts of Birmingham, where life is lived under conditions of great hardship and lack of sanitation.

The following four photographs indicate the type of caravan dwelling used by ordinary inhabitants of the City to live in because they cannot get dwelling houses.





GENERAL SANITARY WORK.

This has been larger in extent and more difficult during 1923 than in any previous year on record. Many property owners allowed their dwelling houses to get into a bad condition during the war and for some years following, due to the fact that the cost of repairs was high. The allowance made for repairs in the Rent Restriction Act has, however, greatly helped matters, and during 1923 a good many property owners took in hand the repairing of their property, but there is no doubt that property owners are worse off now than formerly.

Recent legislation has, to a very large extent, limited the powers of the property owner to do what he likes with what he regards as his own. This has resulted in endless litigation, and a very unfortunate antagonistic relationship between the landlord and tenant. The inability of many tenants to pay their rent, due to unemployment, has greatly increased the friction between landlord and tenant, and has made the relationship between them very strained in many cases. Owing to these strained relationships it has been much more difficult for the Public Health Committee to get work willingly done.

Complaints of lack of repair or of actual nuisance have been more numerous during 1923 than formerly. The table below shows the number of cases in which preliminary or statutory notices were served for repairs to dwelling houses or for the abatement of nuisances. It will be seen that the numbers dealt with in 1923 were larger than formerly.

			Number of visits paid by inspectors.	Number of defects for which notices were served.
1917	...	...	94,860	33,419
1918	...	...	95,036	27,596
1919	...	...	111,379	56,611
1920	...	...	113,315	60,802
1921	...	...	119,147	62,497
1922	...	...	134,516	86,938
1923	...	...	143,866	104,210

The next table gives fuller details of the character of the work done.

No. of visits and revisits paid :—

General House inspection	...	...	...	...	...	13,205
Infectious Diseases	...	...	...	...	...	8,688
Nuisances or Complaints	...	...	...	...	...	31,121
Work ordered	...	...	...	...	...	49,470
Work in progress	...	...	...	...	...	21,124
Inspection of Dirty Courts	...	...	...	...	...	2,653
Manure Receptacles	...	...	...	...	...	803
Smoke or Water Tests	...	...	...	...	...	944
Tents, Vans and Sheds	...	...	...	...	...	220
Offensive Trades	...	...	...	...	...	105
Ice Cream Vendors	...	...	...	...	...	910
Rats Order	...	...	...	...	...	195
Calls on Owners or Agents	...	...	...	...	...	4,636
Other Purposes	...	...	...	...	...	9,792
Total	...	...	...	...	...	143,866

Nuisances, etc., reported :—

Houses to be disinfected after Scarlet Fever	...	...	2,164
" " " Diphtheria	...	...	1,374
" " " Typhoid Fever	...	...	29
" " " Small-pox	...	...	3
Repairs to Houses	...	...	66,441
Houses to be cleansed	...	...	5,384
Houses to be provided with better ventilation	...	...	61
Houses to be provided with separate water supply	...	...	165
Cases of overcrowding to be remedied	...	...	40
Houses to be provided with Damp Courses	...	...	80
Water to be removed from Cellars	...	...	394

Spouting to be repaired or disconnected	6,096
Rain Water Cisterns to be disconnected or abolished ...	340
Ashpit Privies to be converted to Water Closets ...	18
Pan Privies to be converted to Water Closets ...	48
Privies and Closets to be limewashed	702
Water Closets to be repaired or reconstructed ...	3,903
Additional Water Closets to be provided	78
Ashplaces to be repaired or limewashed	339
Soilpipes to be repaired or removed	42
Urinals to be put in order or closed	73
Drains to be relaid or repaired	1,628
Drains to be opened and cleansed	5,872
Gully Traps to be provided	302
Interception Traps to be provided on main drains ...	26
Premises to be supplied with additional drains ...	150
Drains in cellars to be disconnected or abolished ...	8
Sink Bend Pipes to be repaired or affixed	1,117
Sanitary Sinks to be provided	396
Yards to be paved	144
Yards to be repaired	1,006
Courts or Yards to be cleansed by Tenants	132
Houses to be cleansed by Tenants	37
Wash Houses to be repaired or limewashed	1,877
Keeping of fowls to be discontinued	67
Nuisances from swine and swine styes abated ...	13
Accummulations of rubbish, manure, etc., to be removed ...	240
Manure receptacles to be provided or repaired ...	67
Dangerous premises to be reported to City Surveyor's Department	792
Defective Fittings to be reported to Water Department ...	1,265
Other Work to be done	1,297
Total	104,210

In connection with the defects discovered notices were issued as follows :—

Preliminary notices	17,453
Reminders	1,850
Statutory notices	2,959

In 82 instances a summons was issued. One summons was afterwards withdrawn and one dismissed. Of the other 80 cases, in only seven was a fine imposed, in 16 the defendant was ordered to do the work and pay the costs of the summons, and in 57 cases the defendant paid the costs only, the work having been completed.

In 1922 the Public Health Committee decided to carry out work under Section 28 of the Housing and Town Planning Act, and during 1923 notices were served in regard to a good many dwelling houses. Since Section 28 was passed so many amendments have been made to the procedure that the Section now differs very much from what first appeared in the Act of Parliament. It would seem that the Section now is becoming not only risky but one which is cumbersome to an extraordinary extent. The miserable dilapidated cottage can no longer be dealt with by the Public Health Committee alone, but requires the intervention, perhaps on more than one occasion, of officers sent from London by the Ministry of Health, and payments for the work done at this cottage may be required to be extended over a long period of years and small amounts collected at intervals.

Each of the appeals which were heard in regard to Notices served during 1923 appeared to be quite unnecessary and to indicate that Parliament does not put trust in the capacity or ability of the local Authority to deal with small items of repair in cottage property.

COURTYARDS.

Two special Inspectors are engaged in visiting courtyards in order to see that the water closets, outhouses and drain traps are kept clean by the tenants. They made 95,691 inspections of water closets and found 1,166 obstructed and 67 in a dirty condition.

The special staff of court cleaners carried out the following:—

Courts cleansed (paid) ...	...	...	...	...	...	12,250
Courts cleansed (free) ...	...	...	...	...	...	10,941
Houses stripped ...	...	...	...	...	...	67
Water closets inspected ...	...	...	...	...	...	104,266
Water closets opened ...	...	...	...	...	...	7,658
Water closets cleansed ...	...	...	...	...	...	64,313
Sheds washed ...	...	...	...	...	...	28,234
Drain traps cleansed ...	...	...	...	...	...	156,956
Drains opened ...	...	...	...	...	...	5,674

COMMON LODGING HOUSES.

On December 31st, 1923, there were 30 common lodging houses on the register with bed accommodation for 2,123 persons—28 of these houses with 2,038 beds were for men and two houses with 85 beds for women.

During the year 1,307 day visits and 144 night visits were made. The average occupation at the time of these visits was 76 per cent. of the beds.

Many of these houses are old and do not represent the best type of building for this purpose.

HOUSES LET-IN-LODGINGS.

There are 553 such houses on the register; these have accommodation for 4,549 lodgers.

The control of these slummiest of houses occupied by the worst of slum dwellers is by no means an easy matter. Unfortunately for lack of house room it is impossible to enforce the local Bye-laws to their full extent.

The following defects were found during 1923:—

Overcrowding ...	...	...	...	...	...	4
Repairs to houses ...	...	...	...	...	...	1,016
Rooms not swept daily ...	...	...	...	...	...	7
Passages and staircases not swept ...	...	...	...	...	...	7
Houses to be cleansed (walls and ceilings) ...	...	...	...	...	...	460
Drains, etc., obstructed ...	...	...	...	...	...	176
Water-closets to be repaired ...	...	...	...	...	...	79
Rubbish to be removed from yards and cellars ...	...	...	...	...	...	12
Ashbins to be provided ...	...	...	...	...	...	17
Water taps and pipes to be repaired ...	...	...	...	...	...	20
Washing accommodation to be provided ...	...	...	...	...	...	44
Sinks provided or repaired ...	...	...	...	...	...	22

CANAL BOATS REPORT.

THE COUNCIL HOUSE,
BIRMINGHAM.

January 9th, 1924.

GENTLEMEN—

In compliance with Section 3 of the Canal Boats Act, 1884, I beg to submit the annual report of the work done by this Department during the year 1923 under the Canal Boats Acts 1877 and 1884, and the regulations under these Acts.

The Canal Boats Inspector for the City is Inspector W. G. E. Childs, who combines with this work the duties of Inspector of Common Lodging Houses. His salary for the joint appointment is 55/- per week and bonus, with uniform and allowance for eyele.

INSPECTION OF BOATS.

During the year 1923 the number of boats inspected on the canals within the City area was 1,107 and the number of inspections during each quarter is shown as follows:—

During the first quarter of the year 320 boats were examined.

"	second	"	"	285	"	"
"	third	"	"	256	"	"
"	fourth	"	"	246	"	"

Total ... 1,107

The 1,107 boats inspected were registered for the accommodation of 3,730 persons and when inspected were found to be carrying 1,396 men, 878 women and 960 children, a total of 3,234 persons, represented in terms of adults as 2,914.

The following table shows the number of boats inspected during the last five years, giving the number of persons whom the boats were registered to accommodate and the actual number of occupants at the time of inspection.

Year.	No. of boats inspected.	Registered to carry (adults).	Actually occupied by			Total occupying.	Equivalent to adults.	
			Men.	Women.	Children.			
1919	...	890	2,975½	1,189	566	553	2,308	2,124
1920	...	930	3,076½	1,121	676	569	2,366	2,176
1921	...	1,037	3,311½	1,224	773	817	2,814	2,542
1922	...	1,093	3,414	1,319	842	873	3,034	2,743
1923	...	1,107	3,730	1,396	878	960	3,234	2,914

Of the 1,107 boats inspected during the year it was found that 1,053 or 95 per cent. were in good condition and conforming with the Acts and Regulations, while in 54 or 5 per cent. of the total, various contraventions were found. These are classified thus:—

Boats with one contravention each		20	making total contraventions		20
„	two	„	„	8	16
„	three	„	„	13	39
„	four	„	„	12	48
„	five	„	„	1	5
				54	128

Complaint notes were duly served on the owners in all cases.

During the year certificates were returned by owners, signed by various Canal Boat Inspectors, showing that 150 complaints had been remedied.

The following table shows the number and character of contraventions found and remedied during the year.

Contraventions referring to					Outstanding and brought forward from 1922.	Found during 1923.	Remedied during 1923.	Carried forward to 1924.
Cabins requiring painting	...	...	...	...	21	32	33	20
„ „ repairs	...	...	...	...	17	30	36	11
„ „ marking	...	...	...	...	16	28	33	11
Cabins leaking	...	...	...	...	14	15	21	8
Non-registration	...	...	...	...	2	4	5	1
Not producing certificate	...	...	...	...	4	8	7	5
Certificate not identifying boat	...	...	...	...	1	—	—	1
Fly-boats being used as ordinary	...	...	...	...	—	1	1	—
Separation of sexes	...	...	...	...	4	3	6	1
Overcrowding	...	...	...	...	4	6	7	3
Dirty cabins	...	...	...	...	—	1	1	—
					83	128	150	61

No legal proceedings have been taken in any case during the year.

INFECTIOUS DISEASES.

Smallpox.—On March 25th the Sanitary Inspector for Brownhills telephoned that a case of Smallpox had been diagnosed at Gloucester and that the patient had been a boatman on the canal boat “Norah May,” registered number 19, Stroud. He also informed us that the boat was passing through Birmingham on the way to Gloucester. Inquiries were at once instituted in Birmingham, and it was found that the boat had really passed on to Worcester. A communication, therefore, was sent to the Worcester Authorities, with a view to disinfection of the boat being carried out, which we afterwards ascertained was done at Worcester.

No other suspicious case of Smallpox occurred on any canal boats, notwithstanding the fact that there are a number of canal boats plying between Gloucester and Birmingham.

Scarlet Fever.—On December 9th a case of Scarlet Fever was notified on board the canal boat “Belgium,” registered number 1156, Birmingham. The patient was immediately visited and removed to hospital on the same day. The boat was subsequently disinfected. The boat having come from Coventry to Birmingham the Coventry authorities were informed and also the owners.

On December 10th a case of Scarlet Fever was notified in a male adult, 25 years of age, on the canal boat “Adder,” registered number 1451, Birmingham. This case was immediately visited and the patient was removed to the City Hospital at once. This boat also came from Coventry, and, therefore, the authorities there were communicated with as well as the owners.

REGISTRATION OF BOATS.

There were 10 boats registered during 1923 in Birmingham. No registrations were cancelled, thus leaving a total of 526 boats on the Birmingham Register on December 31st, 1923.

The registrations were as follows:—

New motor boats registered ...	...	...	...	4
New ordinary boats registered ...	...	...	...	2
Ordinary boats re-registered ...	...	...	...	3
Steam boats registered ...	...	...	...	1
				—
				10
				—
Registration cancelled ...	...	...	...	Nil
Increase ...	...	...	...	10

Two of these re-registrations were due to change of ownership and one to change of ownership and structural alteration. These were previously registered at Coventry, Towcester and Chester. The outside authorities concerned were all notified of the re-registration.

The number of boats on the Birmingham Register for the last five years has been as follows:—

December 31st, 1919, Boats on Register ...	...	470
" 1920 "	...	478
" 1921 "	...	505
" 1922 "	...	516
" 1923 "	...	526

The 526 boats on the register at present are classified as follows:—

Ordinary boats ...	...	470
Steam boats ...	...	22
Motor boats ...	...	34

I am, Gentlemen,

Your obedient servant,

JOHN ROBERTSON.

MILK SHOPS.

Two Inspectors devote their whole time to the registration of small shops and other retailers of milk and the subsequent visitation of these premises to see that the milk is stored under sanitary conditions and that the vessels are kept clean.

The record of the milk shop inspectors' work is set out below:—

No. of Milkshops on Register ...	...	...	...	...	4,346
No. of Dairies on Register ...	...	...	...	...	8
No. of Purveyors on Register ...	...	...	...	...	679
New milkshops registered ...	...	...	...	...	337
New purveyors registered ...	...	...	...	...	147
Milkshop transfers ...	...	...	...	...	346
No. of visits to Milkshops ...	...	...	...	...	4,054
No. of visits to Dairies ...	...	...	...	...	57
No. of visits to Purveyors ...	...	...	...	...	663
No. of visits to Railway Stations ...	...	...	...	...	64
Milk vessels examined at milkshops ...	...	...	...	...	5,334
Milk churns examined at stations ...	...	...	...	...	258
Milkshops limewashed ...	...	...	...	...	23
Sanitary defects found ...	...	...	...	...	40
Other contraventions ...	...	...	...	...	16
Cases of infectious disease reported ...	...	...	...	...	62
Milkshops registrations cancelled ...	...	...	...	...	89
Purveyors' registrations cancelled ...	...	...	...	...	70

INSPECTION OF COWS AND COWSHEDS.

(REPORT MADE BY MR. BRENNAN DE VINE, F.R.C.V.S., VETERINARY SUPERINTENDENT).

The regular inspection of cows and cowsheds in the city has been continued on the lines of the previous year, the city being divided into two districts, north and south, and a Veterinary Inspector being placed in charge of each district.

The following table shows the number of registered sheds, the number of visits paid by the Veterinary Inspectors to city dairies, and the number of cows in city dairies at 31st December, 1923, as compared with the previous year:—

			Dairy farms.	Cowsheds.	Dairy cows.	Visits to sheds.
December	31st, 1923	...	137	275	1,745	3,071
"	31st, 1922	...	138	284	1,750	3,369

Cows.

The health, condition and cleanliness of the cows in the city dairies has been good, and in only three cases did we find it necessary to write to cowkeepers calling their attention to the condition of their cows and cowsheds.

Mastitis.—Twenty cows were found in city dairies to be affected with acute cararrhal mastitis. In each case the owners were notified that the milk from these cows should not be sold for human consumption, and in the majority of cases, where possible, the animals were kept isolated from the rest of the herd.

Tuberculosis.—Five cows were found in city dairies to be affected with tuberculosis of the udder. These were all slaughtered.

Foot and Mouth Disease.—On the 12th December an outbreak of Foot and Mouth Disease was confirmed by the Ministry of Agriculture at a city dairy. The infected and in-contact animals were immediately slaughtered and destroyed at Montagu Street.

Owing to the prevalence of Foot and Mouth Disease throughout the country and to the outbreak referred to above, it was agreed that the Veterinary Inspection of cows and cowsheds should be temporarily suspended.

COWSHEDS.

New Cowkeepers.—Eight applications were received from dairymen to commence keeping cows in the city for the sale of milk. The sheds were examined and particulars of any necessary alterations required were given, and in each case the owner complied with our requirements.

Dairies Discontinued.—Nine dairymen have discontinued keeping cows and their names have been removed from the register.

Changes of Occupancy.—In three cases farms have changed hands and the register has been rectified accordingly.

Sheds.—Of the 275 cowsheds on the register 266 have been given registration numbers, and nine are being altered to meet our requirements. When these alterations are completed registration will be effected.

During the year alterations have been carried out in 24 sheds, and three other buildings have been converted into cowsheds. One cowshed has been demolished and one shed at a dairy farm has been condemned as being unfit for the housing of dairy cows.

Unregistered Sheds.—In two cases notices were served on cowkeepers requesting them to discontinue keeping cows for the sale of milk in unsuitable sheds. In one case the owner is having the shed altered and made suitable for registration, and in the other case the owner has decided to discontinue using the building as a cowshed.

Prosecution.—Proceedings were taken against a city cowkeeper for keeping cows for the sake of milk in an unregistered shed. The case was heard at the Court on April 13th, when a fine of £2 was imposed.

Advertisement.—In accordance with Health Committee Resolution No. 4402, the following advertisement was inserted in the "Birmingham Post," "Birmingham Mail," and "Gazette" of June 6th:—

NOTICE TO COWKEEPERS.

DAIRIES, COWSHEDS AND MILKSHOPS ORDER OF 1885.

This Order requires that ALL COWKEEPERS who are Keeping Cows for the Sale of Milk shall be REGISTERED WITH THE LOCAL AUTHORITY as such. Applications for registration to be made to Brennan De Vine, F.R.C.V.S., Veterinary Superintendent, Market Buildings, Moat Lane.

INSPECTION OF MEAT, FISH, FRUIT, &c.

(REPORT BY MR. BRENNAN DE VINE, F.R.C.V.S., VETERINARY SUPERINTENDENT).

The regular inspection of meat and other foods has been continued on the lines of the previous year, the city being divided into four districts, and an Inspector placed in charge of each district. In addition Inspectors are constantly employed in the public abattoir, and the Wholesale Fish and Vegetable Markets. All food offered for sale in these markets is subject to daily inspection. During the year this work has continued to increase.

SLAUGHTERHOUSES.

All the slaughterhouses in the city have been very carefully inspected and, where necessary, they have, as far as possible, been altered and made sanitary.

The following slaughterhouses have been altered so as to make them sanitary and bring them up-to-date:—

Registered.	Licensed.	Total.
17	11	28

In addition repairs are in progress at eight other slaughterhouses.

The repairs and alterations consisted of improved drainage, ventilation and covering of walls with a washable material to facilitate frequent cleansing of the slaughterhouses, and in a number of cases the floors have been re-laid.

Changes of Occupancy.—Two private slaughterhouses changed hands during the year. These were inspected by us, and, where necessary, alterations were carried out with a view to bringing them up-to-date and making them sanitary.

Water Supply.—In six of the private slaughterhouses in the city the water supply was obtained from a pump on the premises. In each case samples of the pump water was taken and examined for purity, and in three cases the quality of the water was found to be good, but in the other three cases the water was found not to be fit for drinking purposes. The town supply has been laid on in these latter cases, and the pump water is no longer used.

Register.—At the 31st December, 1923, there were 124 private slaughterhouses and two knackeries in use.

	1923.
Registered slaughterhouses	68
Annually licensed slaughterhouses	56
Knackeries	2
	<hr/>
	126
	<hr/>

The number of visits paid to slaughterhouses by Inspectors during the year was 8,031.

REGISTRATION OF PREMISES USED FOR THE MANUFACTURE OF POTTED MEATS, ETC.

During the year the names of 45 persons have been added to the register. The following list gives the number of registered premises at 31st December, 1923, as compared with the previous year:—

	No. in City.	
	1923.	1922.
A-la-Mode Beef	70	67
Sausage Manufacturers	32	32
Pork Pie Manufacturers, etc.	34	34
Tripe Dressers, etc.	63	52
Potted and Cooked Meat Manufacturers	133	102
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	332	287
	<hr/>	<hr/>

In addition to the visits of inspection paid by Inspectors to the above premises, fish friers' premises, and factories where pork pies, sausages, tripe, etc., are prepared, are not included in the above registration, but are regularly visited for the purpose of inspection.

FOOD INSPECTOR F. BAMFORTH.

On January 31st Mr. F. Bamforth left the Department to take up an appointment with Messrs. Bywater's; Mr. F. E. Somer, M.R.C.V.S., D.V.S.M., who was temporarily employed during the time Inspector Andrews was at Cheltenham Sanatorium, continued in the Department to replace Mr. Bamforth.

VISITS OF INSPECTION.

During the year 66,694 visits of inspection were paid by the Inspectors as compared with 61,226 visits in 1922, namely:—

	Visits of Inspection.	
	1923.	1922.
Slaughterhouses	8,031	12,106
Beef Butchers	17,258	15,204
Pork Butchers	5,382	4,719
Fishmongers	6,802	5,785
Fruiterers	8,005	8,315
Provision Dealers, etc.	96	947
Tripe Dealers, etc.	345	305
Caterers	264	801
Fish Friers	3,038	2,321
Wholesale Provision Merchants	16	109
A-la-Mode Beef Shops	2,964	2,394
Ham and Bacon Dressers	643	359
Street Hawkers	12,617	6,958
Inspections by request	1,102	474
Jam, etc., Manufacturers	8	15
Cold Stores	119	414
Gut Cleaners	2	—
Horse Flesh Shops	2	—
	<hr/>	<hr/>
	66,694	61,226
	<hr/>	<hr/>

The above does not include the inspection work at the City Meat Market, visits to stalls in the Market Hall, Fish Market, Vegetable Market or Bell Street, there being Inspectors constantly employed in these Markets.

SLAUGHTERING OF ANIMALS FOR FOOD.

The following is a list of the animals slaughtered during the year in the public abattoirs:—

	1923.
Cattle	40,112
Calves	60,817
Sheep	149,010
Pigs	34,880
	<hr/>
Total	284,849
	<hr/>

Note.—Owing to the prevalence of Foot and Mouth Disease in the country since August last and the restrictions imposed by the many Foot and Mouth Disease Orders issued by the Ministry of Agriculture, the number of fat cattle sent to our Markets was very materially interfered with during the year.

ILLICIT SLAUGHTERING OF ANIMALS.

Seven cases of illicit slaughtering were detected in the city, and legal proceedings were instituted.

Case 1. The defendant and owner was fined 20/- for allowing pigs to be slaughtered on unlicensed premises. The butcher who slaughtered the animals was fined 40/-.

Case 2. The owner was fined 10/- for slaughtering a pig on unlicensed premises, and the slaughterman was fined 20/-.

Case 3. The owner and butcher were each fined 5/- for slaughtering pigs on unlicensed premises.

Case 4. The owner and butcher were each fined 20/- for slaughtering pigs on unlicensed premises.

Case 5. The owner was fined 20/-, also the slaughterman and the butcher who purchased the carcase of a pig slaughtered on unlicensed premises.

Case 6. The owner was fined 20/- for slaughtering a pig on unlicensed premises.

Case 7. The owner was fined 10/- for slaughtering a pig on unlicensed premises.

COVERING OF MEAT WHILE BEING CONVEYED THROUGH THE STREETS, ETC.

Section 76 of the Birmingham Corporation Act, 1922, which came into operation during the year, requires that every person who shall convey meat or other articles intended for food of man through or along the streets shall, as far as may be necessary, protect such meat or other article against deterioration or contamination by effectively covering same with a suitable clean cloth or other covering. Also that any van, cart or other vehicle used for the conveyance of meat, etc., shall be kept clean.

UNSOOUND MEAT, ETC.

The following table gives the list of carcasses and organs destroyed as unsound:—

							Bulls.	Cows.	Calves.	Swine.	Sheep.	Goats.	Total.
<i>Lungs—</i>													
Tuberculosis	...	...	...	...	...	...	654	3,084	59	2,010	—	—	5,807
Other Conditions	...	...	...	...	...	...	163	638	943	1,227	1,461	12	4,444
<i>Hearts—</i>													
Tuberculosis	...	...	...	...	...	...	339	1,298	58	1,932	—	—	4,627
Other Conditions	...	...	...	...	...	...	35	116	931	1,252	1,594	12	3,940
<i>Bowels—</i>													
Tuberculosis	...	...	...	...	...	...	439	1,910	88	1,592	—	—	4,029
Other Conditions	...	...	...	...	...	...	67	251	591	1,118	478	12	2,517
<i>Stomachs—</i>													
Tuberculosis	...	...	...	...	...	...	437	1,867	52	1,723	—	—	4,079
Other Conditions	...	...	...	...	...	...	65	239	650	974	403	12	2,343
<i>Spleens—</i>													
Tuberculosis	...	...	...	...	...	...	444	1,905	59	2,005	—	—	4,413
Other Conditions	...	...	...	...	...	...	29	109	927	1,012	1,352	12	3,441
<i>Liver—</i>													
Tuberculosis	...	...	...	...	...	...	477	2,103	64	2,010	—	—	4,654
Other Conditions	...	...	...	...	...	...	997	4,517	961	1,238	2,189	12	9,914
<i>Kidneys—</i>													
Tuberculosis	...	...	...	...	...	...	420	1,604	74	125	—	—	2,223
Other Conditions	...	...	...	...	...	...	95	352	1,273	243	771	24	2,758
<i>Udders—</i>													
Tuberculosis	...	...	...	...	...	...	—	180	—	50	—	—	230
Other Conditions	...	...	...	...	...	...	—	210	—	34	—	—	244
<i>Heads—</i>													
Tuberculosis	...	...	...	...	...	...	304	1,263	47	1,697	—	—	3,311
Other Conditions	...	...	...	...	...	...	70	272	752	369	664	10	2,137
<i>Fore Quarters—</i>													
Tuberculosis	...	...	...	...	...	...	9	27	—	—	—	—	36
Other Conditions	...	...	...	...	...	...	5	19	1	3	4	—	32
<i>Hind Quarters—</i>													
Tuberculosis	...	...	...	...	...	...	—	7	—	1	—	—	8
Other Conditions	...	...	...	...	...	...	5	25	5	11	—	—	46
<i>Carcasses—</i>													
Tuberculosis	...	...	...	...	...	...	47	297	37	128	—	—	509
Other Conditions	...	...	...	...	...	...	31	233	723	365	473	12	1,837

Miscellaneous.

The quantity of miscellaneous meat surrendered was 11t. 5c. 2q. 23lbs., of which the greater part was destroyed for putrefaction.

The total weight of meat surrendered during the year was 519t. 13c. 2q. 19lbs.

The number of cases of surrender is 9,068.

The weight of meat surrendered included 156 carcasses of calves for immaturity.

Frozen Meat.

During the year there were 13c. 0q. 6lbs. of frozen and chilled meat surrendered for putrefaction.

FISH.

The following table gives the amount of fish destroyed as unfit during the year, representing 934 lots:—

	T.	C.	Q.	LBS.
Bloaters	1	9	2	3
Bream	3	16	1	2
Coal Fish and Pollock	3	8	—	—
Cod, Codling or Sprag	13	1	1	11
Eels, Ling and Congers	1	2	1	1
Fillets	2	2	1	13
Gurnard and Mullet	—	2	—	—
Haddock (Dry)	9	—	—	15
„ (Fresh)	1	9	—	—
Hake	16	2	2	12
Halibut	1	1	2	26
Herrings	12	12	—	6
Kippers	5	16	3	15
Mackerel	8	9	3	27
Megrims	12	2	2	18
Mixed Fish	1	12	—	27
Monk Fish	—	2	3	—
Plaice	5	8	1	7
Roe	12	16	2	23
Sprats	—	13	—	17
Salmon	—	7	—	25
Trout	—	—	3	15
Turbot and Soles	—	9	—	14
Whiting	3	16	—	—
Witches	—	8	2	—
	117	11	2	25

The following table gives the amount of Shell Fish which has been destroyed as unfit:—

	T.	C.	Q.	LBS.
Lobsters and Crabs	1	7	2	—
Mussels	8	—	—	—
Oysters and Cockles	—	1	—	—
Periwinkles	1	2	—	—
Prawns and Shrimps	1	14	1	15
Whelks	—	9	2	—
	12	14	1	15

Number of cases of surrender, 53.

Samples of Shell Fish, when in season, are collected weekly by us and sent to the City Laboratory for examination. No Shell Fish are allowed to be sold on our markets unless they are accompanied by a certificate of origin.

The following is a list of the samples sent for examination:—

Date.	Specimen.	Origin.
Jan. 3 ...	Mussels ...	Drogheda
„ 10 ...	„ ...	Conway
„ 17 ...	Periwinkles ...	Scotland
„ 24 ...	Mussels ...	Galway
Feb. 21 ...	„ ...	Conway
„ 28 ...	„ ...	„
Mar. 5 ...	Oysters ...	Dorsetshire
„ 9 ...	Mussels ...	Aberdovey
„ 12 ...	„ ...	Fleetwood
„ 13 ...	„ ...	Scotland
„ 13 ...	„ ...	Conway
„ 14 ...	„ ...	Holland
„ 14 ...	„ ...	Conway
„ 27 ...	„ ...	„
„ 27 ...	Periwinkles ...	Greenore, Ireland
„ 27 ...	Cockles ...	Lancashire
Apl. 9 ...	Mussels ...	Conway
„ 9 ...	Cockles ...	Lancashire
„ 10 ...	Mussels ...	Conway
„ 10 ...	Periwinkles ...	Scotland
„ 23 ...	„ ...	Montrose
„ 23 ...	Mussels ...	Holland

May 7	...	Oysters	...	Truro
" 7	...	Periwinkles	...	Rhosneiger
" 8	...	Mussels	...	Holland
" 22	...	Periwinkles	...	Montrose
" 28	...	Oysters	...	Ireland
June 11	...	Periwinkles	...	Co. Louth, Ireland
" 11	...	Cockles	...	Lancashire
July 24	...	Periwinkles	...	Scotland
" 31	...	"	...	"
" 31	...	Oysters	...	Liverpool
Aug. 13	...	Periwinkles	...	North Britain
" 14	...	Oysters	...	Liverpool
Sept. 10	...	Periwinkles	...	Ireland
" 11	...	Mussels	...	Penclaudd
" 24	...	"	...	Conway
" 25	...	"	...	Lympstone
Oct. 8	...	"	...	Conway
" 9	...	"	...	Lympstone
" 22	...	"	...	King's Lynn
" 23	...	"	...	Lympstone
" 29	...	"	...	Killorglen, Ireland
Nov. 12	...	"	...	Conway
" 13	...	"	...	Killorglen, Ireland
" 22	...	"	...	" "
" 22	...	"	...	" "
Dec. 10	...	"	...	Galway
" 11	...	"	...	Aberdovey
" 31	...	Periwinkles	...	Bargorgan

POULTRY, ETC.

The following table gives the amount of Poultry, etc., destroyed as unfit during the year:—

	T.	C.	Q.	LBS.
Ducks	—	11	2	7
Eggs	4	7	—	15
Fowl and Pigeons	4	—	2	17
Game	—	9	1	2
Geese and Turkeys	2	9	2	2
Rabbits	20	18	1	27
	32	16	3	11

Number of cases of surrender, 1,089.

FRUIT AND VEGETABLES.

The following table gives the amount of Fruit and Vegetables destroyed as unfit during 1923:—

	T.	C.	Q.	LBS.
Pears and Apples	9	16	—	13
Tomatoes	10	7	—	24
Cabbage	10	4	3	4
Celery	1	—	3	—
Parsnips	3	2	—	—
Cauliflower and Beetroot	4	16	3	24
Carrots	20	3	2	—
Onions	—	5	—	—
Potatoes	2	19	—	—
Cucumbers	—	8	3	—
Cress	2	11	8	—
Cherries, Strawberries, and Black-currants	3	2	—	3
Gooseberries	—	1	1	16
Lettuce	1	13	—	—
Melons	1	13	—	—
Beans	9	—	—	—
Turnips	2	9	1	12
Plums	21	16	—	18
Peas	2	10	—	—
Apricots	—	7	1	14
Grapes and Oranges	—	5	3	—
Lemons	—	14	—	—
Chestnuts	—	2	2	—
Figs	—	1	—	—
Radishes	—	8	—	—
Blackberries	1	—	—	—
Nuts	—	2	—	18
Mushrooms	—	—	—	16
	112	2	3	7

Number of cases of surrender, 203.

MISCELLANEOUS.

Miscellaneous foodstuffs destroyed during the year:—

	T.	C.	Q.	LBS.
Compressed Beef	5	7	1	21
Tinned Fruit	—	6	2	17
„ Fish	—	3	1	12½
„ Tomatoes	—	—	1	19½
Condensed Milk	—	—	3	10
Tomato Purée	—	2	—	7
Syrup	—	—	2	4
Pickled Whiting	—	3	—	—
Flour	—	8	—	—
Lemonade Powder	—	1	1	13
	6	18	3	1

Number of cases of surrender, 345.

PROSECUTIONS.

On November 23rd a stall-holder in the Bull Ring was summoned at the Court and fined £5 for selling foreign eggs as new-laid in contravention of the Sale of Food Order, 1921.

On 28th December a butcher was fined £20 for exposing for sale tuberculous pork.

IMPORTATION OF CANADIAN CATTLE.

On 1st April the Importation of Animals Act, 1922, permitting the importation of Canadian Store Cattle into this country, came into operation and in connection with this Act the Ministry of Agriculture and Fisheries issued the Importation of Canadian Cattle Order, 1923, which also came into operation on 1st April. This latter Order lays down the conditions under which the cattle may be allowed to land in this country.

Authorised Market.—Birmingham Montague Street Market was authorised as a market for the reception and sale of Canadian store cattle. Any cattle which may be sold at our Market must, according to the Order, be detained at the farm, premises, or elsewhere for a period of six days unless they are slaughtered in the meantime.

CALVES' CARCASSES.

Attention was called to the quantity of immature veal being offered for sale in Birmingham. In order to discourage this practice the Committee decided that no dressed carcase of veal under 36lbs. in weight should in future be allowed to be offered for sale in the Market.

SORTING ROOM, GLOUCESTER STREET.

This Sorting Room was opened May 26th, 1923. It has proved a great success, and has reduced the amount of damaged fruit and vegetables thrown on to the streets, and gives the Inspectors an opportunity of examining the food offered to the public from hawkers' carts.

CONVEYANCE OF LIVE POULTRY ORDER OF 1919.

This Order provides for the protection of poultry during conveyance, for the use of suitable receptacles and for the prevention of confinement of poultry for a time longer than is reasonably necessary, and the provisions are being carried into effect.

DEMONSTRATIONS.

For the convenience of Inspectors of other surrounding Local Authorities, a series of demonstrations in Meat Inspection, under the scheme recommended by the Ministry of Health, and organised by the Royal Sanitary Institute, were held at the City Meat Market.

LEAGUE OF NATIONS.

In February a Deputation from the League of Nations visited Birmingham to study Public Health Administration. Arrangements were made and they were taken over some of the private slaughter houses in the city, the public abattoirs, and they also visited some of the dairies in the city area. The system of meat and food inspection and of milk inspection, as carried out in Birmingham, was explained to them.

FISHERIES DEPARTMENT.

Unclean Salmon.

Sept. 11th.—Three salmon were seized in our Market Hall as unclean under the Salmon and Fresh Waters Fisheries Act, 1923. The case was reported to the Fishmongers Company, London, who took the matter up with the senders and Norwegian Authorities.

Sept. 17th.—One salmon was seized which had come packed in a case of poultry. Being unclean and out of season, we reported the matter to the Fishmongers Company, who took the case up with the Inspector of Fisheries, Ireland, who prosecuted the sender, who was fined 5/- and 5/- Court fees.

"Glass Shell" Crabs.

Dec. 29th.—Consignments of Crabs from Berwick-on-Tweed were sent to Birmingham in an unsatisfactory condition known as "Glass Shell" contrary to the Fisheries Act, 1877. Seventy-three crabs were seized and reported to the Fishmongers Company, who took the matter up with the Northumberland Sea Fisheries Committee.

FISH JURY.

The following members of the Birmingham Game and Poultry Dealers Association were selected to act as a Fish Jury for the ensuing Municipal year:—

Messrs. W. H. Miles,
C. Hutchins,
F. W. Norris,
N. Dexter,
W. Waters,
J. T. Smith, Junr.

SHOPS ACTS, 1912, 1913, 1920 AND 1921.

The total number of shops observed and visited during 1923 was as follows :—

Shops observed without entering	...	...	...	...	...	23,644
Systematic visits to shops	...	...	...	...	...	9,893
Re-visits	...	...	...	...	...	586
Special visits	...	...	...	...	...	432

Infringements found :—

Early closing notice not exhibited	...	...	...	...	...	418
Shop not closed at 1 p.m.	...	...	...	...	...	38
Exempted trade notice not exhibited	...	...	...	...	...	383
Young persons' notice not exhibited	...	...	...	...	...	5
Young persons' hours of work not exhibited	...	...	...	...	...	6
Assistants' half-holiday not exhibited	...	...	...	...	...	126
Assistants' meal times not exhibited	...	...	...	...	...	8
Seats for assistants not provided	...	...	...	...	...	0
Sanitary convenience not provided	1
Change of early closing day not notified	154

Prosecutions	84
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(a) For keeping open the shop on the weekly half-holiday.

- 1 case fined 20/-.
- 1 case fined 10/-.
- 2 cases fined 5/- each.
- 1 case paid costs.

(b) Butchers' Closing Order.

- 29 cases fined £1 each for first offence.
- 1 case fined 15/- for first offence.
- 1 case fined 10/- for first offence.
- 1 case fined £3 for second offence.
- 3 cases fined £2 each for second offence.
- 1 case fined 30/- for second offence.
- 2 cases fined £3 each for third offence.
- 1 case fined £10 for fourth offence.

(c) Shops Act, 1920.

- 11 cases fined £1 each.
- 25 cases fined 10/- each.
- 2 cases fined 5/- each.
- 2 cases paid costs.

FACTORIES AND WORKSHOPS.

The supervision of factories and workshops is partly in the hands of the Home Office and partly in the hands of the City Council. The work done by the three Inspectors engaged by the Public Health Committee is indicated in the following tables :—

I. INSPECTION OF WORKSHOPS AND WORKPLACES.

PREMISES. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
Factories (including Factory Laundries	...	1,258	114
Workshops (including Workshop Laundries)	...	5,549	144
Workplaces (other than Outworkers' Premises included in Part 3 of this Report)	...	285	16
Total	...	7,092	274
Re-visits paid	...	3,273	—

II. DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

PARTICULARS. (1)	Number of Defects.			Number of Prosecutions. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
Nuisances under the Public Health Acts:—				
Want of cleanliness	1,032	1,031	—	—
Want of ventilation	12	11	—	—
Overcrowding	5	5	—	—
Want of drainage of floors	2	2	—	—
Other nuisances	547	545	—	—
Sanitary accommodation—				
Insufficient	54	54	—	—
Unsuitable or defective	1,012	1,009	—	—
Not separate for sexes	26	25	—	—
Offences under the Factory and Workshop Act:—				
Illegal occupation of underground bakehouse (s. 101)	—	—	—	—
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	—	—	—	—
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)	—	—	—	—
Total	2,690	2,682	—	—

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.										OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.		OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110		
	Lists received from Employers.					Notices served on Occu- piers as to keeping or send- ing Lists. (8)	Prosecutions.		In- stances. (11)	Notices served. (12)	Prosecu- tions. (13)	In- stances. (14)	Orders made (S. 110). (15)	Prosecu- tions (Sections 109, 110). (16)	
	Sending twice in the year.		Sending once in the year.				Failing to keep or permit inspec- tion of Lists. (9)	Failing to send Lists. (10)							
	Lists. (2)	Outworkers. (3) (4)		Lists. (5)	Outworkers. (6) (7)										
			Con- tractors (3)		Work- men. (4)		Con- tractors. (6)	Work- men. (7)							
(1)															
Wearing apparel	328	881	911	49	112	53	—	3	2	1	1	—	2	—	
Household linen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Lace, lace curtains and nets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Curtains and furniture hangings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Furniture and upholstery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Electro-plate	32	176	40	1	4	—	—	—	—	—	—	—	—	—	
File making	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Brass and brass articles	4	—	12	—	—	—	—	—	—	—	—	—	—	—	
Fur pulling	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cables and chains	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Anchors and grapnels	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cart gear	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Locks, latches and keys	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Umbrellas, etc.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Artificial flowers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Nets, other than wire nets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tents	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Sacks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Racquet and tennis balls	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Paper, etc., boxes, paper bags	18	—	89	4	—	19	—	—	—	—	—	—	—	—	
Brush making	4	—	63	—	—	—	—	—	—	—	—	—	—	—	
Pea picking	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Leather sorting	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Carding, etc., of buttons, etc.	74	56	1041	9	—	42	—	—	—	—	—	—	—	—	
Stuffed toys	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Basket making	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Chocolates and sweetmeats	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total	460	1113	2156	63	116	114	559	3	2	1	1	—	2	—	

IV.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year ... 4,820

V.—OTHER MATTERS.

	Number.
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Acts (s. 133, 1901) ...	6
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Acts (s. 5, 1901) ...	308
Other ...	419
Underground bakehouses (s. 101):—	
Certificates granted during the year ...	—
In use at the end of the year ...	4

BLACK SMOKE PREVENTION.

The following figures indicate the type and scope of the work done by the two Smoke Inspectors during 1923:—

Total number of observations of one hour's duration ...	4,930
Cases reported for excessive black smoke:—	
From boiler fires ...	93
„ boiler and furnaces ...	27
Metallurgical furnaces ...	76
Total ...	196
Cases in which proceedings were instituted in court ...	88
Convictions obtained ...	88
Dismissed ...	Nil
Total amount of fines ...	£172 0 0
Average per case ...	(approx.) £2
Cases dealt with by cautionary letter ...	93

There is no doubt whatever as to the harm done directly to health by the presence in the air of soot and other products of combustion. Indirectly black smoke does an infinity of harm by making people careless in regard to cleanliness where there is an unending struggle to keep clean. To let sunlight and cleanness into Birmingham would be of inestimable benefit. Some indication of what might occur was observed during the coal strike. So far no practicable and acceptable solution has yet been put forward for a City using soft coal in its factories and open fires in its dwellings. Probably some harm is being done by enthusiasts who cry for a cleaner air without suggesting the reasonable means of accomplishing this under our local conditions.

Birmingham atmosphere is, however, slowly improving, for not only is the vigorous and continuous anti-smoke work of the Public Health Department doing much, but the use of gas in factories for power and metallurgical purposes and in the dwelling for cooking and heating has probably done even more in reducing smoke. Electric power gives promise of even greater and more efficient elimination of smoke from factories and dwellings. There is, however, much yet to be done before it can be said that reasonably clean air is available for the people of Birmingham.

HEALTH VISITORS' WORK, 1923.

(By BLANCHE GARDINER, B.A., SUPERINTENDENT OF HEALTH VISITORS.)

During the year 1923 the number of Health Visitors (General, Tuberculosis, and Infant Welfare) remained practically the same as in the preceding year, viz., 94, of whom 19 were engaged in General Health visiting, 14 in Tuberculosis visiting, and the remaining ones in Maternity and Child Welfare work.

Fortunately there were not so many resignations this year, 16 leaving (as compared with 27 last year), 3 of whom were General Health visitors, who had acted as such for 24 years, 22 years and 17 years respectively.

Reports dealing solely with Maternity and Child Welfare work, and with Tuberculosis, are given elsewhere, but the following table indicates the class of cases dealt with by the General Health Visitors, and obviously includes the illnesses of young children under 5, in addition to those of school-age.

Two or three of the General Health Visitors also helped regularly, one day each week, at three of the Infant Welfare Centres.

PRIMARY VISITS :—						1920.	1921.	1922.	1923.
House Inspection	...	...	...	...	...	3,821	6,697	6,111	5,333
Infant Visits (including Stillbirths)	...	...	...	...	...	2,767	3,151	3,033	2,367
Measles	...	...	...	...	...	6,154	3,825	3,704	6,955
German Measles	...	...	...	...	...	358	90	102	79
Chicken Pox	...	...	...	...	...	3,204	2,395	3,083	3,545
Whooping Cough	...	...	...	...	...	2,764	1,758	5,169	1,364
Mumps	...	...	...	...	...	698	7,497	3,591	1,041
Influenza	...	...	...	...	...	327	134	569	397
Pneumonia	...	...	...	...	...	1,783	1,138	2,129	2,245
Epidemic Diarrhoea (Prevention)	...	...	...	...	...	—	1,400	544	10
Scabies	...	...	...	...	...	981	643	233	164
Impetigo	...	...	...	...	...	224	542	782	926
Conjunctivitis	...	...	...	...	...	9	83	72	64
Enlarged Glands	...	...	...	...	...	...	...	64	92
Bronchitis, Colds, etc.	...	...	...	...	...	2,833	3,853	3,058	2,514
Neglect, Insufficient Clothing, etc.	...	...	...	...	...	...	...	946	686
Vermineous Cases	...	...	...	...	...	42	103	81	112
Visits to Schools	...	...	...	...	...	255	382	277	235
Visits to obtain Addresses	...	...	...	...	...	...	...	421	271
Visits to Officials, Doctors, etc.	...	...	...	...	...	Included in "Other Visits" during these two years			
Visits to Aged Persons or on their behalf	...	...	...	...	...
Visits for Special Enquiries	...	...	...	...	...
Country Holiday Inspections	...	...	...	...	...	24	151	87	106
Health Talks	...	...	...	...	...	23	36	13	15
Other Visits	...	...	...	...	...	5,467	4,052	778	664
Total Primary Visits	...	...	...	...	...	31,734	37,930	36,248	30,383
RE-VISITS	...	...	...	...	...	15,501	18,920	19,968	23,582
TOTAL EFFECTIVE VISITS	...	...	...	...	...	47,235	56,850	56,216	53,965
USELESS VISITS (Out, Removed, etc.)	...	...	...	...	...	5,685	5,871	4,955	4,419
GRAND TOTAL	...	...	...	...	...	52,920	62,721	61,171	58,384

Scabies.—The number of Scabies cases (reported from the schools, and visited in the homes), which was very large during the war, has since shown a steady diminution each year. Twenty-four tickets for free baths, at the Skin Hospital, were given by the Health Visitors to children under, and to persons above, school age.

Pneumonia.—2,096 cases of Pneumonia were notified by doctors to the Public Health Department. The Health Visitors paid 2,245 primary visits, and 3,198 re-visits, including some visits to cases reported by the District Nursing Societies, or met with incidentally in the course of their work.

Much good (even saving of life) was effected by Health Visitors impressing upon the relatives of Pneumonia patients the importance of strict obedience to the doctor's instructions, and also the special need for expert, trained nursing, in this illness. It was thus a matter of regret that sometimes the notification was not received until after the death of the patient.

The Birmingham District Nursing Societies did extremely useful work in nursing 671 cases of Pneumonia, severe Measles, and Whooping Cough, as per arrangement with the Public Health Department.

A few other illnesses (Bronchitis, Influenza, Abscess, etc.) were also referred by the Health Visitors to the District Nurses, who made their own arrangement with the relatives, as to any payment.

Births.—The General Health Visitors (who visit principally those infants whose births occur outside the Infant Welfare Centre areas) paid 2,299 primary visits, and 7,739 re-visits; and also 68 visits and 28 re-visits in connection with still-births.

The Aged.—The number of applications for Health Visitors to deal with the ever-difficult problem of neglected old people (men or women, destitute or otherwise, alone or with others), who were living in absolutely unsuitable or dirty surroundings, was about the same as last year, viz., 216. If alone, the Health Visitor's first aim was to get into touch with relatives, who should be responsible for their care; and in all cases she strove to do everything possible to ameliorate their present conditions before urging, as a final resort, the Workhouse Infirmary.

Infectious Diseases.—In connection with these (Measles, Whooping Cough, Chicken Pox, Mumps, etc.) both the Health Visitors and myself greatly missed, during the latter half of the year, the valuable, expert advice and ever-willing help of Dr. Beazeley, whose serious illness (and subsequent death) was a great sorrow to us all.

The Staff of Visitors.—Though the whole staff of Visitors worked wonderfully well it is more difficult now to speak of them all, in the same comprehensive terms of praise, as it used to be previously; partly on account of the various sub-divisions of the department (with the frequent changes of work and workers), and partly also, because the aims and effects of health-visiting work in Birmingham now are considerably different from those of the earlier and pioneer workers. (In this connection may be mentioned the resignation of Mrs. Rogerson, who was one of the first four Health Visitors appointed in Birmingham, 24 years ago.)

Much of the best and most valuable work that is done cannot be expressed in terms of hours, figures, and number of visits, but nevertheless those who are fully cognizant with the details and difficulties of "Health Visiting" are able to appreciate it to the fullest extent.

TABLE I.

Vital Statistics during 1923 and previous years.

Year.	Population Estimated to middle of each Year.	BIRTHS.		DEATHS.		INFANT MORTALITY.		DEATHS FROM											
		BIRTHS.		DEATHS.		INFANT MORTALITY.		Influenza.		Tuberculosis.		Cancer.		Heart Disease, (Organic)		Bronchitis.		Pneumonia.	
		Number.	Rate.	Number.	Rate.	Deaths.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.
1901	760,989	23,866	31.4	13,290	17.5	4,205	176	122	.16	1,515	1.99	552	.73	896	1.18	1,363	1.80	1,173	1.55
1902	768,757	24,246*	31.2	12,650*	16.3	3,503*	144	97*	.12	1,356*	1.75	530*	.68	932*	1.20	1,270*	1.64	1,135*	1.46
1903	776,604	23,956	30.9	12,224	15.8	3,525	147	79	.10	1,362	1.76	592	.76	905	1.17	1,131	1.46	1,025	1.32
1904	784,532	24,260	31.0	13,882	17.7	4,346	179	104	.13	1,369	1.75	578	.74	943	1.20	1,378	1.76	1,165	1.49
1905	792,540	22,939	29.0	11,948	15.1	3,224	141	107	.14	1,316	1.67	643	.81	889	1.12	1,131	1.43	1,084	1.37
1906	800,631	23,484	29.4	12,737	15.9	3,682	157	123	.15	1,203	1.51	664	.83	956	1.20	1,103	1.38	1,056	1.32
1907	808,803	23,233	28.8	12,356	15.3	3,084	133	128	.16	1,241	1.54	645	.80	1,041	1.29	1,201	1.49	1,189	1.47
1908	817,060	23,986*	29.1	12,596*	15.3	3,124*	130	255*	.31	1,308*	1.59	702*	.85	1,028*	1.25	1,214*	1.47	1,005*	1.22
1909	825,400	22,555	27.4	12,398	15.1	2,727	121	151	.18	1,256	1.52	678	.82	972	1.18	1,214	1.47	1,124	1.36
1910	833,826	22,288	26.8	11,001	13.2	2,570	115	93	.11	1,168	1.40	737	.89	954	1.15	1,034	1.24	954	1.15
1911	842,337	21,975	26.1	12,623	15.0	3,298	150	79	.09	1,230	1.46	748	.89	1,013	1.21	1,054	1.25	972	1.16
1912	850,947	22,168	26.1	12,005	14.1	2,470	111	98	.12	1,292	1.52	791	.93	969	1.14	1,073	1.26	1,017	1.20
1913	859,644	23,812*	27.3	12,962*	14.9	3,070*	129	112*	.13	1,341*	1.53	893*	1.02	1,135*	1.30	1,044*	1.20	988*	1.13
1914	882,534	23,207	26.4	13,026	14.8	2,839	122	142	.16	1,293	1.47	773	.88	1,301	1.48	1,109	1.26	1,090	1.24
1915	891,234	21,187	23.8	12,816	14.4	2,490	118	146	.16	1,377	1.55	885	1.00	1,338	1.51	1,219	1.37	1,140	1.28
1916	895,678	20,618	23.1	12,081	13.5	2,142	104	146	.16	1,324	1.48	897	1.00	1,290	1.45	1,148	1.29	1,006	1.13
1917	900,000	17,706	19.7	11,274	12.6	1,791	101	98	.11	1,405	1.56	912	1.02	1,298	1.45	910	1.01	846	0.94
1918	870,000	16,840	19.4	13,175	15.2	1,674	99	2,172	2.50	1,385	1.60	883	1.02	1,183	1.36	1,059	1.22	1,270	1.46
1919	910,000	19,335*	20.9	12,000*	13.0	1,630*	84	1,062*	1.15	1,188*	1.28	935*	1.01	1,187*	1.28	1,285*	1.39	1,013*	1.10
1920	910,000	25,069	27.6	11,409	12.6	2,072	83	421	.46	1,001	1.10	1,014	1.12	1,143	1.26	1,066	1.17	1,011	1.11
1921	919,683	22,134	24.1	10,361	11.3	1,838	83	134	.15	1,035	1.13	1,020	1.12	1,113	1.21	798	0.87	950	1.04
1922	927,844	19,850	21.5	11,212	12.1	1,705	86	442	.48	1,049	1.13	1,090	1.18	1,214	1.31	1,080	1.17	998	1.08
1923	936,079	19,069	20.4	10,248	11.0	1,370	72	264	.28	1,006	1.08	1,092	1.17	1,120	1.20	897	0.96	834	0.89

* 53 Weeks.

[illegible]

TABLE II.—Continued.

CAUSE OF DEATH.	AGES.																		Males	Fe- males	Per- sons.
	0-	1-	2-	3-	4-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85-					
Other Poisonings (occupational) ...	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	1		
Ditto do. (not occupational) ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
II.—NERVOUS SYSTEM.																					
Encephalitis Lethargica ...	—	—	1	2	—	1	—	—	—	1	1	1	1	1	—	—	5	4	9		
Other Encephalitis ...	3	—	—	—	—	—	—	—	1	1	—	—	—	2	—	—	2	5	7		
Cerebro-spinal Fever ...	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	1		
Meningitis (other forms) ...	21	11	5	3	2	8	2	1	—	—	2	3	—	—	—	—	26	32	58		
Locomotor Ataxy ...	—	—	—	—	—	—	—	—	—	4	4	2	7	4	—	—	13	8	21		
Acute Poliomyelitis ...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1		
Polio Encephalitis ...	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2		
Other Diseases, Spinal Cord ...	—	—	—	—	—	—	1	1	—	5	3	9	14	13	6	1	28	25	53		
Cerebral Hæmorrhage, Apoplexy ...	1	—	—	—	—	1	1	1	—	3	21	67	111	137	101	14	192	266	458		
Softening of Brain ...	—	—	—	—	—	—	—	—	—	—	2	—	1	8	2	1	3	11	14		
Paralysis (no specified cause) ...	1	—	—	—	—	—	1	—	—	—	1	4	11	18	7	2	25	20	45		
General Paralysis of Insane ...	—	—	—	—	—	—	—	1	—	4	14	12	7	1	—	—	29	10	39		
Other Mental Alienation ...	—	—	—	—	—	—	—	—	—	2	—	2	2	2	1	—	6	3	9		
Epilepsy ...	—	1	1	—	—	3	2	5	2	5	8	8	9	8	3	1	23	33	56		
Convulsions (5 and over) ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Convulsions (under 5) ...	49	12	3	2	—	—	—	—	—	—	—	—	—	—	—	—	25	41	66		
Chorea ...	—	—	—	—	—	—	1	1	—	—	—	—	1	—	—	—	1	2	3		
Hysteria, Neuralgia, Neuritis ...	—	—	—	—	—	—	—	1	—	—	1	4	—	3	—	—	5	4	9		
Other Diseases of Nervous System ...	2	1	—	1	1	2	5	3	2	6	4	12	6	2	3	—	26	24	50		
Diseases of Eyes and Annexa ...	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1	2		
Mastoid Disease ...	2	1	—	1	1	2	3	2	—	3	2	—	—	—	—	—	11	6	17		
Other Diseases of Ears ...	1	—	—	—	2	3	2	5	5	2	—	4	1	—	—	—	12	13	25		
III.—CIRCULATORY SYSTEM.																					
Pericarditis ...	—	1	—	—	1	2	—	2	—	—	—	—	—	—	—	—	2	4	6		
Acute Endocarditis ...	—	—	—	—	—	2	1	9	10	12	15	16	7	3	—	—	35	40	75		
Valvular Disease ...	—	—	—	—	—	6	11	13	13	33	36	57	86	97	54	10	169	247	416		
Fatty Degeneration of Heart ...	—	—	—	—	—	—	—	—	—	1	3	3	11	12	5	—	9	26	35		
Other Organic Diseases of Heart ...	1	—	1	—	—	—	2	3	5	10	19	63	131	216	169	49	282	387	669		
Angina Pectoris ...	—	—	—	—	—	—	—	—	—	—	1	4	5	7	3	—	12	8	20		
Aneurysm ...	—	—	—	—	—	—	—	1	—	1	3	4	2	2	—	—	9	4	13		
Arterio-sclerosis ...	—	—	—	—	—	—	—	—	—	—	1	11	48	81	53	11	128	77	205		
Other Diseases of Arteries ...	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	2	—	2		
Cer. Embolism, Thrombosis ...	—	—	—	—	—	—	—	—	1	1	4	11	31	39	23	7	52	65	117		
Other Embolism and Throm. ...	—	—	1	—	—	—	—	1	—	—	1	1	3	2	—	—	7	2	9		
Diseases of Veins ...	—	—	—	—	—	—	—	—	—	—	—	3	1	1	—	—	2	3	5		
Status Lymphaticus ...	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	1	1	2		
Other Dis. of Lymphatic System ...	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	1		
Other Dis. of Circulatory System ...	—	—	—	—	—	—	—	—	—	1	3	1	3	4	5	—	7	10	17		
IV.—RESPIRATORY SYSTEM.																					
Diseases of Nasal Fossæ ...	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1		
Diseases of Larynx ...	—	2	1	1	—	3	—	—	—	—	2	—	—	1	—	—	8	2	10		
Diseases of Thyroid Body ...	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	2	2		
Bronchitis ...	87	29	9	1	1	2	3	2	1	5	22	47	129	286	219	54	430	467	897		
Broncho-pneumonia ...	175	106	26	9	3	9	1	—	1	6	9	21	17	20	18	2	231	192	423		
Lobar Pneumonia ...	8	6	—	1	1	3	4	2	10	20	18	28	26	30	7	—	103	61	164		
Pneumonia (type not stated)...	23	20	7	6	2	9	5	5	7	17	30	33	39	23	18	3	146	101	247		
Pleurisy ...	1	2	4	—	—	2	—	—	2	—	2	6	4	4	1	—	15	13	28		
Pul. Cong., Pul. Apoplexy ...	2	1	—	—	—	—	—	—	—	—	—	1	4	6	7	3	13	11	24		
Gangrene of Lungs ...	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	3	—	3		
Asthma ...	—	—	—	—	—	—	—	—	—	—	3	12	12	8	1	—	21	15	36		
Pulmonary Emphysema ...	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	2	—	2		
Fibroid Disease of Lung ...	—	—	—	—	—	—	—	—	—	—	—	2	—	1	—	—	2	1	3		
Other Dis. of Respiratory System ...	1	—	—	—	—	—	—	—	—	1	1	2	2	2	—	—	6	3	9		
V.—DIGESTIVE SYSTEM.																					
Diseases of Teeth and Gums ...	1	1	—	—	—	—	—	—	—	—	2	2	2	2	—	—	6	4	10		
Other Dis. of Mouth and Annexa ...	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	2	—	2		
Diseases of Pharynx, Tonsillitis ...	2	—	2	—	—	1	1	1	1	1	—	1	1	—	—	—	6	5	11		
Diseases of the Oesophagus ...	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	—	2	1	3		
Perforating Ulcer of Stomach ...	—	—	—	—	—	—	—	—	1	12	20	11	13	6	1	—	44	20	64		
Inflammation of Stomach ...	15	1	1	—	—	1	—	1	1	1	2	3	6	7	6	1	25	21	46		
Other Diseases of Stomach ...	1	—	—	—	—	—	—	1	—	—	—	3	3	—	2	—	7	3	10		

CAUSE OF DEATH.	AGES.																Males	Fe- males	Per- sons.
	0-	1-	2-	3-	4-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85-			
Diarrhœa, Enteritis	181	26	9	3	—	3	—	1	—	5	6	6	5	5	10	1	169	92	261
Ankylostomiasis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Intestinal Parasites	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Appendicitis	—	—	1	1	2	7	6	7	—	5	6	10	4	5	—	—	29	25	54
Hernia	1	1	—	—	—	—	—	—	—	—	1	7	7	7	2	—	12	14	26
Intestinal Obstruction	11	—	—	1	—	—	2	3	2	1	2	9	8	6	6	1	31	21	52
Other Diseases of Intestines	1	—	1	—	—	—	—	1	—	—	1	2	—	1	2	—	5	4	9
Acute Yellow Atrophy of Liver	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	2	—	2
Hydatid of Liver	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cirrhosis of Liver	—	—	—	—	—	—	—	—	—	—	2	14	12	3	1	—	21	11	32
Biliary Calculi	—	—	—	—	—	—	—	—	—	1	—	6	4	10	1	—	7	15	22
Other Diseases of Liver	—	—	1	—	—	—	—	—	2	1	4	6	4	3	1	—	5	17	22
Diseases of Spleen	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	1
Peritonitis (cause unstated)	3	—	—	1	2	6	1	—	—	1	1	1	1	1	—	—	5	13	18
Other Dis. of Digestive System	—	—	—	—	—	1	—	—	—	—	—	2	6	—	1	—	4	6	10
VI.—GENITO-URINARY SYSTEM.																			
Acute Nephritis	—	2	—	—	1	1	5	3	1	—	1	7	2	1	1	—	13	12	25
Bright's Disease	—	1	1	—	—	2	5	3	4	13	18	46	53	49	30	5	128	102	230
Chyluria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Dis. of Kidneys and Annexa	1	—	—	—	—	—	—	—	—	—	3	2	2	3	1	1	7	6	13
Calculi of Urinary Passages	—	—	—	—	—	—	—	—	1	—	1	3	1	—	1	—	6	1	7
Diseases of Bladder	—	—	—	—	—	—	—	—	—	—	1	1	4	6	6	1	11	8	19
Diseases of Urethra, etc.	—	—	—	—	—	—	—	—	—	—	1	2	2	2	—	—	7	—	7
Diseases of Prostate	—	—	—	—	—	—	—	—	—	—	—	—	3	10	19	4	36	—	36
Diseases of Male Genital Organs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uterine Hæmorrhage	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1
Uterine Tumour	—	—	—	—	—	—	—	—	—	—	1	5	1	1	—	—	—	8	8
Other Diseases of Uterus	—	—	—	—	—	—	—	—	—	—	—	2	—	1	—	—	—	3	3
Ovarian Cyst Tumour	—	—	—	—	—	—	—	—	—	—	—	—	—	5	1	—	—	6	6
Other Dis. of Female Organs	—	—	—	—	—	—	—	—	1	1	1	1	—	—	—	—	—	4	4
Diseases of Breast	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	1
VII.—THE PUERPERAL STATE.																			
Accidents of Pregnancy	—	—	—	—	—	—	—	1	1	1	4	1	—	—	—	—	—	8	8
Puerperal Hæmorrhage	—	—	—	—	—	—	—	—	—	—	5	—	—	—	—	—	—	5	5
Other Accidents of Childbirth	—	—	—	—	—	—	—	—	1	4	3	1	—	—	—	—	—	9	9
Puerperal Fever	—	—	—	—	—	—	—	—	5	16	13	—	—	—	—	—	—	34	34
Puerperal Alb'ria and Convulsions	—	—	—	—	—	—	—	—	2	3	—	—	—	—	—	—	—	5	5
Phleg. Dolens, Embolism	—	—	—	—	—	—	—	—	1	4	1	—	—	—	—	—	—	6	6
Puerperal Insanity	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Disease of Breast	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
VIII.—SKIN & CELLULAR TISSUE.																			
Senile Gangrene	—	—	—	—	—	—	—	—	—	—	—	—	3	12	8	4	14	13	27
Gangrene (other types)	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	2	2
Carbuncle, Boil	—	—	—	—	—	—	—	—	—	—	1	2	—	2	3	—	4	4	8
Acute Abscess, Phlegmon	1	—	—	—	—	1	—	2	3	—	—	2	1	1	1	1	10	3	13
Dis. of Integumentary System	21	—	—	—	—	—	—	—	—	1	—	1	2	1	2	1	18	11	29
IX.—BONES AND ORGANS OF LOCOMOTION.																			
Diseases of Bones	—	—	—	—	—	2	7	2	1	3	—	2	4	—	1	—	10	12	22
Diseases of Joints	—	—	—	—	—	—	—	—	—	—	—	1	1	2	—	—	—	4	4
Amputations	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Dis. of Locomotor System	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	2	—	2
X.—MALFORMATIONS.																			
Congenital Malformations	77	5	—	—	—	3	—	—	1	—	—	—	—	—	—	—	42	44	86

TABLE II.—Continued.

CAUSE OF DEATH.	AGES.																Males	Fe- males	Per- sons.
	0-	1-	2-	3-	4-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85-			
XI.—DISEASES OF EARLY INFANCY.																			
Premature Birth	356	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	214	142	356
Infantile Debility, Icterus, etc. ...	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65	46	111
Other Diseases of early infancy ...	48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28	20	48
Lack of Care (under 3 months) ...	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	3	5
XII.—OLD AGE.																			
Old Age	—	—	—	—	—	—	—	—	—	—	—	—	3	100	269	121	186	307	493
XIII.—EXTERNAL CAUSES.																			
Suicide—																			
By Poison	—	—	—	—	—	—	—	—	—	1	3	7	5	1	—	—	12	5	17
By Asphyxia	—	—	—	—	—	—	—	—	2	3	6	6	4	6	1	—	17	11	28
By Hanging, Strangulation ...	—	—	—	—	—	—	—	—	—	1	—	2	7	3	2	—	13	2	15
By Drowning	—	—	—	—	—	—	—	1	2	6	5	9	9	2	—	—	23	11	34
By Firearms	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	2	—	2
By Cutting or Piercing	—	—	—	—	—	—	—	—	2	3	2	6	4	4	—	—	18	3	21
By Jumping from high places ...	—	—	—	—	—	—	—	—	1	1	1	—	2	1	—	—	4	2	6
By Crushing	—	—	—	—	—	—	—	1	—	—	2	—	1	—	—	—	4	—	4
Other Suicides	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	2	1	3
Poisoning by Food	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1
Other Acute Poisonings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	1
Conflagration	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	1
Burns (conflagration excepted) ...	2	5	5	8	3	4	1	1	1	1	1	1	4	1	1	3	22	20	42
Deleterious Gases	23	—	—	—	—	—	—	—	—	1	—	—	1	1	—	—	14	12	26
Accidental Drowning	—	—	—	—	1	4	3	4	—	—	2	1	1	1	—	—	17	—	17
Injury—																			
By Firearms	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
By Cutting or Piercing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
By Fall	—	—	—	—	1	—	—	1	2	1	4	5	17	23	25	6	37	48	85
In Mines and Quarries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
By Machines	—	—	—	—	—	1	—	—	—	—	1	2	2	—	—	—	6	—	6
By Other Crushing	—	—	1	1	4	13	3	4	9	14	7	12	6	3	2	2	57	24	81
By Animals	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Starvation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Excessive Cold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Effects of Heat	—	—	—	—	—	—	—	—	—	—	—	2	1	—	—	—	1	2	3
Lightning	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Electricity	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Homicide by Firearms	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Homicide by cutting or piercing ...	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	1
Homicide, other means	1	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	1	2	3
Fractures (not specified)	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	2	3	—	3
Other Violence	1	—	—	1	—	—	2	—	—	2	4	2	3	—	—	—	13	2	15
XIV.—ILL-DEFINED CAUSES.																			
Dropsy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syncope (1 and under 70)	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	1	1	2
Sudden Death (not defined)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Heart Failure (1 and under 70) ...	—	—	—	—	—	—	—	—	—	—	4	14	17	12	—	—	32	15	47
Other ill-defined causes	—	2	—	—	—	—	—	—	—	—	1	—	—	—	—	—	2	1	3
Cause not specified	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	4
Totals	1370	386	161	114	64	215	154	211	227	534	720	1162	1496	1815	1284	335	5210	5038	10248

TABLE III. Births and Deaths Registered in, or belonging to, each Ward during the Year ending December 29th, 1923.

CAUSES OF DEATH.	Acoc's Green.	All Saints'	Aston	Balsall Heath	Duddeston and Nechells	Edgbaston	Erdington (North)	Erdington (South)	Handsworth	Harborne	King's Norton	Ladywood	Lozells	Market Hall	Moseley and King's Heath	Northfield	Rotton Park	St. Bartholomew's	St. Martin's	St. Mary's	St. Paul's	Saltley	Sandwell	Selly Oak	Small Heath	Soho	Sparkbrook	Sparkhill	Washwood Heath	Vardley	Not Located	City
Enteric Fever ...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Measles ...	1	10	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	186
Scarlet Fever ...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39
Whooping Cough ...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	44
Diphtheria, Croup ...	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	139
Influenza ...	15	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	264
Erysipelas ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27
Pulmonary Tuberculosis ...	20	35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	860
Tuberculous Meningitis ...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	67
Abdominal Tuberculosis ...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29
Other Tuberculous Dis. ...	2	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50
Cancer ...	40	64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1092
Rheumatic Fever ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36
Diabetes ...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	84
Encephalitis Lethargica ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9
Cerebro-Spinal Fever ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Meningitis (other forms) ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	58
Acute Poliomyelitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Polio-Encephalitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Cereb'l Hemorr., Apop. ...	11	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	458
Convulsions ...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	66
Organic Dis. of Heart ...	21	50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1120
Arterio-Sclerosis ...	2	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	205
Cereb'l Embol., Thromb. ...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	117
Bronchitis ...	21	44	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	897
Pneumonia ...	11	48	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	834
Other Respiratory Dis. ...	5	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	118
Diarrhoea, Enteritis, etc—	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Under two years ...	3	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	207
Two years and over ...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Appendicitis, Typhlitis ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver ...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nephritis & Bright's Dis. ...	13	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Acc. and Dis. of	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pregnancy & Parturit'n	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Debility and	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malformation, Prema-	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ture Birth ...	14	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Old Age ...	17	25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Accidents or Negligence	11	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suicides ...	5	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes ...	38	52	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL DEATHS ...	264	498	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10248
DEATHS UNDER 1 YEAR ...	25	76	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1370
BIRTHS ...	514	957	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19069

TABLE IV.

Deaths under 1 year Registered in, or belonging to, each Ward during the Year ending December 29th, 1923

CAUSES OF DEATH.	Acocck's Green.	All Saints'	Aston	Balsall Heath	Duddeston and Nechells	Edgbaston	Erdington (North)	Erdington (South)	Handsworth	Harborne	King's Norton	Ladywood	Lozells	Market Hall	Moseley and King's Heath	Northfield	Rotton Park	St. Bartholomew's	St. Martin's	St. Mary's	St. Paul's	Saltley	Sandwell	Selly Oak	Small Heath	Soho	Sparkbrook	Sparkhill	Washwood Heath	Vardley	Not Located	City	
Measles ...	1	4	3	...	7	...	...	...	...	...	...	3	...	1	1	...	4	2	5	5	1	...	...	...	...	1	1	...	...	2	...	41	
Scarlet Fever ...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	...	1	...	3	3	1	...	1	...	...	...	...	2	...	...	...	1	2	...	1	...	...	...	...	...	...	...	...	...	3	...	...
Diphtheria, Croup ...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza ...	1	2	...	...	...	...	...	...	...	...	1	1	3	1	1	...	...	1	1	2	2	1	...	...	...	1	...	...	2	...	...	7	
Tuberculous Meningitis ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...	...	...	...	1	...	...	18	
Abdominal Tuberculosis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	
Other Tuberculous ...	...	2	...	...	...	...	1	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	9	
Diseases ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
Rickets ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Syphilis ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2	...	...	...	...	...	...	...	...	...	...	...	8
Encephalitis Lethargica ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous) ...	1	...	3	...	2	...	...	...	1	...	...	2	...	1	...	...	1	1	3	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions ...	...	2	2	2	3	...	1	1	...	...	1	1	2	2	...	...	1	3	3	4	6	...	1	1	...	...	1	1	...	...	...	...	21
Bronchitis ...	...	3	9	2	13	1	1	...	...	...	1	2	4	2	1	...	3	5	5	7	6	2	2	2	1	2	2	2	2	5	...	...	49
Pneumonia (all forms) ...	2	14	20	4	20	5	1	3	4	...	2	15	7	4	2	...	11	17	19	16	1	3	...	...	2	1	4	1	5	...	...	...	87
Gastritis ...	...	...	3	1	1	1	...	...	...	...	2	...	1	...	...	...	1	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	206
Diarrhoea, Enteritis, etc. ...	2	10	7	4	22	1	4	2	2	1	2	14	4	3	1	...	11	12	13	25	10	7	2	...	...	2	5	...	...	6	...	1	16
Congenital Malformations ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Premature Birth ...	1	5	6	...	11	1	...	1	...	...	5	1	3	...	...	...	1	7	5	2	4	1	...	5	2	1	4	2	7	...	...	77	
Atrophy, Debility, and Marasmus ...	9	16	16	16	21	7	4	9	4	5	8	8	5	11	7	...	11	30	32	24	26	13	5	3	17	6	14	8	13	...	...	...	356
Atelectasis ...	3	5	6	5	9	5	2	2	2	1	5	6	1	2	1	...	3	5	11	8	7	2	3	5	...	3	2	1	2	...	...	...	111
Injury at Birth ...	...	1	1	1	...	1	...	...	...	...	1	...	...	...	1	1	...	1	2	1	1	...	...	2	...	...	1	...	2	...	...	...	18
Neglect (under three months) ...	2	3	2	...	...	...	1	...	...	1	3	2	1	1	...	...	2	2	1	...	1	...	1	...	...	...	1	...	...	...	...	...	25
Suffocation (Overlying) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other causes ...	2	6	3	1	6	1	2	1	3	1	...	1	4	1	3	...	4	2	3	4	6	5	...	...	2	...	...	2	...	...	...	...	5
ALL CAUSES ...	25	76	83	40	123	24	17	21	18	10	31	62	38	31	19	4	61	94	113	105	92	40	16	27	30	24	40	15	57	22	12	1370	

TABLE V.

Cases of Infectious Diseases notified during each week of the year 1923.

WEEK.		Enteric Fever.	Continued Fever.	Malaria.	Trench Fever.	Snallpox.	Scarlet Fever.	Diphtheria.	Dysentery.	Erysipelas.	Pulmonary Tuberculosis.	Other Tuberculosis.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Poliomyelitis.	Poli-Encephalitis.	Pneumonia.	Puerperal Fever.	Ophthalmia Neonatorum.	TOTAL.
Number.	Ending.																			
	1923.																			
1	Jan. 6	...	...	...	...	...	58	30	...	9	33	15	...	...	...	...	43	7	11	206
2	" 13	...	...	...	...	...	79	42	...	10	40	6	...	...	...	...	30	3	11	221
3	" 20	1	...	...	...	...	56	36	1	16	36	9	...	...	1	...	28	9	8	201
4	" 27	...	...	1	...	...	83	47	...	18	41	8	...	...	...	...	34	3	10	245
5	Feb. 3	...	...	1	...	...	62	36	...	10	33	5	...	...	...	...	34	3	12	196
6	" 10	...	...	...	...	...	53	52	...	9	34	8	...	...	...	...	41	1	7	205
7	" 17	...	...	...	...	...	65	34	...	14	38	6	...	...	...	...	55	...	9	221
8	" 24	...	...	...	...	...	71	44	...	14	30	6	...	...	...	...	51	4	5	225
9	Mar. 3	...	...	...	...	...	53	32	...	11	40	7	3	...	...	...	71	3	9	229
10	" 10	...	...	...	...	...	63	31	...	7	38	10	2	...	...	...	47	7	9	214
11	" 17	1	...	...	...	...	49	23	1	8	21	4	2	...	...	...	57	4	4	174
12	" 24	...	...	...	...	...	56	23	...	9	30	11	4	...	...	...	47	6	6	192
13	" 31	...	...	...	...	...	36	34	...	11	36	6	...	...	...	...	77	3	11	214
14	April 7	...	...	2	...	...	49	31	...	8	25	3	...	...	...	...	72	2	8	200
15	" 14	1	...	...	...	...	50	21	...	9	43	7	1	...	...	...	73	3	5	213
16	" 21	...	...	...	...	...	65	25	...	7	38	6	...	...	...	...	59	6	14	220
17	" 28	...	...	1	...	...	32	25	...	3	48	9	1	...	...	...	51	7	5	182
18	May 5	...	...	...	...	...	40	33	...	5	44	6	...	...	...	...	89	5	7	229
19	" 12	...	...	...	...	...	47	25	...	6	38	7	...	...	...	...	89	2	10	224
20	" 19	...	...	...	...	...	51	10	...	6	39	4	1	1	...	...	68	...	6	186
21	" 26	...	...	...	...	...	40	21	...	3	33	15	...	...	...	...	59	2	10	183
22	June 2	...	...	...	...	...	42	19	...	10	43	12	3	1	...	...	67	3	7	207
23	" 9	...	...	...	...	...	47	19	...	12	28	2	...	...	...	...	41	5	...	154
24	" 16	...	...	2	...	...	51	18	...	12	42	3	...	...	...	...	40	5	10	183
25	" 23	1	...	...	...	1	56	20	...	7	41	6	...	...	...	...	45	8	11	196
26	" 30	1	...	...	...	2	59	20	...	12	38	12	...	...	...	...	52	3	8	207
27	July 7	...	...	...	...	...	59	15	...	8	36	8	...	...	...	...	51	2	14	193
28	" 14	...	...	1	...	...	55	29	...	9	30	4	...	...	...	...	45	2	13	188
29	" 21	1	...	1	...	...	35	26	...	7	36	4	...	...	...	...	26	2	7	145
30	" 28	2	...	...	...	...	54	20	1	1	27	5	...	...	...	...	16	3	8	137
31	Aug. 4	...	...	...	...	...	45	21	...	4	37	9	...	...	1	...	26	2	10	155
32	" 11	1	...	1	...	...	39	27	...	8	30	...	...	...	...	...	19	1	6	132
33	" 18	3	...	...	...	...	31	33	1	6	43	2	...	...	...	...	18	4	9	150
34	" 25	2	...	1	...	...	38	32	...	5	27	6	...	...	3	...	20	...	7	141
35	Sep. 1	2	...	...	...	...	40	47	...	5	33	17	...	...	...	...	8	5	8	165
36	" 8	1	...	...	...	...	27	32	...	2	24	2	2	...	1	...	12	4	5	112
37	" 15	1	...	...	...	...	49	34	1	3	35	15	...	1	...	...	24	1	11	175
38	" 22	1	...	...	...	...	49	26	1	14	36	3	1	...	5	...	32	4	3	175
39	" 29	2	...	...	...	...	41	39	...	10	33	8	1	...	1	...	14	2	6	157
40	Oct. 6	1	...	...	...	...	39	30	1	9	21	15	1	...	1	...	25	2	19	164
41	" 13	...	...	1	...	...	33	28	...	9	42	3	...	...	4	...	23	5	4	152
42	" 20	1	...	...	...	...	46	30	...	7	30	15	1	...	4	...	25	7	8	174
43	" 27	...	...	...	...	...	58	24	1	11	26	9	...	1	4	...	28	3	13	178
44	Nov. 3	...	...	...	...	...	47	37	...	...	36	8	2	...	3	1	27	7	8	176
45	" 10	...	...	...	...	...	55	43	...	13	33	19	...	...	1	...	27	3	9	203
46	" 17	1	...	...	...	...	66	28	...	8	26	6	...	...	...	...	25	7	15	182
47	" 24	...	...	...	...	...	52	36	...	6	42	10	...	...	1	1	23	5	5	181
48	Dec. 1	...	...	...	...	...	67	25	...	9	29	2	1	...	2	...	28	3	10	176
49	" 8	...	...	...	...	...	54	26	...	10	39	4	...	...	...	1	43	2	7	186
50	" 15	...	...	...	...	...	44	41	2	9	28	7	2	...	1	...	34	2	4	174
51	" 22	2	...	...	...	...	41	36	8	7	41	4	...	...	...	...	41	1	10	191
52	" 29	6	...	...	...	...	42	21	4	14	15	3	1	...	...	...	39	3	1	149
TOTAL ...		32	...	12	...	3	2619	1537	22	440	1785	381	29	4	33	3	2119	186	433	9638

TABLE VI.
Cases of Infectious Disease notified during the Year 1923. Classified according to ages.

DISEASE.	AGES.													Totals.			
	0-	1-	2-	3-	4-	5-	10-	15-	20-	25-	35-	45-	55-		65-	75-	85-
Enteric Fever ...	...	1	1	...	...	6	5	8	3	2	3	3	...	...	...	...	32
Continued Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Trench Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox ...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	18	63	131	182	154	1115	547	201	75	74	43	15	...	...	...	...	2619
Diphtheria ...	18	72	75	150	87	526	288	125	72	80	23	16	3	1	...	1	1537
Dysentery ...	...	...	1	1	...	1	10	2	3	3	1	...	...	...	...	...	22
Erysipelas ...	13	9	4	3	2	10	22	25	22	46	67	105	63	33	13	3	440
Pulmonary Tuberculosis ...	2	6	10	2	8	116	104	150	225	419	354	238	115	35	1	...	1785
Tuberculous Meningitis ...	11	8	7	3	5	3	3	1	...	1	...	...	...	...	...	...	42
Tuberculosis of Peritoneum and Intestines ...	6	16	5	5	6	19	9	7	5	1	2	1	...	...	...	...	82
Tuberculosis of Spinal Column ...	1	1	7	...	3	8	6	4	1	1	5	2	1	1	...	...	41
Tuberculosis of Joints ...	...	2	2	6	2	24	19	10	6	3	2	2	1	2	...	...	81
Tuberculosis of Other Organs ...	1	4	3	6	6	25	31	10	3	12	3	4	2	3	...	...	113
Disseminated Tuberculosis ...	...	3	2	1	...	5	...	2	5	1	2	1	...	...	...	...	22
EncephalitisLethargica ...	...	1	1	3	...	3	1	2	2	6	3	3	2	2	...	...	29
Cerebro-Spinal Fever ...	...	...	...	...	1	1	1	1	...	...	...	...	...	...	...	...	4
Polionmyelitis ...	3	13	4	3	1	6	2	1	...	...	...	...	...	...	...	...	33
Polio-encephalitis ...	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Pneumonia ...	166	210	143	102	41	179	99	121	132	221	271	172	125	95	37	5	2119
Puerperal Fever ...	...	...	...	...	...	...	...	7	38	90	51	...	...	...	...	...	186
Ophthalmia Neonatorum ...	433	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	433
Total ...	674	409	397	467	316	2048	1147	678	596	967	831	562	314	172	51	9	9638

TABLE VII.

Cases of Infectious Diseases notified during the Year 1923. *Classified according to Wards.*

CAUSES OF DEATH.	Accock's Green.	All Saints'	Aston	Balsall Heath	Duddeston and Nechells	Edgbaston	Erdington (North)	Erdington (South)	Handsworth	Harborne	King's Norton	Ladywood	Lozells	Market Hall	Moseley and King's Heath	Northfield	Rotton Park	St. Bartholomew's	St. Martin's and Deritend	St. Mary's	St. Paul's	Saltley	Sandwell	Selly Oak	Small Heath	Soho	Sparkbrook	Sparkhill	Washwood Heath	Vardley	Not Located	City	
Enteric Fever ...	1	2	1	1	...	...	1	1	...	1	2	...	2	2	2	...	...	1	...	2	...	...	1	5	1	1	1	1	...	1	2	32
Continued Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria ...	1	...	...	1	...	...	...	...	...	...	...	3	1	...	...	...	3	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Trench Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	89	137	101	101	106	73	91	59	63	49	61	81	118	48	103	34	113	109	76	94	97	77	44	70	81	65	59	131	65	133	2619		
Diphtheria ...	31	53	92	56	80	49	22	12	62	26	15	65	116	36	19	17	76	71	50	107	97	57	22	13	41	30	49	18	12	59	1537		
Dysentery ...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	1	...	...	...	...	...
Erysipelas ...	6	22	16	15	31	10	12	8	7	5	7	16	15	7	16	1	13	27	35	21	18	10	8	9	14	8	18	6	6	35	440		
Pulmonary Tuberculosis ...	41	70	83	88	145	49	30	30	37	18	26	60	66	46	38	11	95	101	174	106	67	44	12	30	53	39	69	41	68	24	1785		
Tubercular Meningitis ...	...	...	1	1	2	...	2	1	3	...	2	1	...	2	5	...	2	6	2	...	5	3	...	...	2	2	...	...	...	...	...	42
Tuberculosis of Peritoneum and Intestines...	2	1	3	3	2	2	6	6	...	1	...	1	2	3	1	...	3	5	16	5	3	3	...	2	...	1	3	1	5	1	1	82	
Tuberculosis of Spinal Column ...	...	...	1	...	1	...	...	1	3	...	...	2	1	3	1	...	2	3	6	2	1	2	1	...	3	2	1	2	1	...	...	41
Tuberculosis of Joints ...	1	5	5	1	5	3	1	...	3	1	3	3	5	...	3	...	5	5	6	2	4	2	1	...	3	2	2	...	3	...	...	81
Tuberculosis of Other Organs ...	4	4	12	4	7	3	2	...	4	1	1	5	6	2	3	1	6	6	14	3	1	1	2	2	3	1	3	3	2	5	2	113	
Disseminated Tuberculosis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica ...	2	2	1	1	4	...	1	...	1	...	1	...	1	...	...	...	2	...	3	1	...	...	...	...	...	...	1	...	...	...	...	22
Cerebro-Spinal Fever ...	1	1	1	2	2	4	1	...	1	...	1	1	1	...	1	...	1	...	2	1	...	1	...	...	2	...	1	...	...	...	...	29
Polio-myelitis	2	1	1	2	2	...	2	4
Polio-encephalitis ...	1	...	2	1	3	...	1	...	1	...	...	1	3	1	...	...	1	...	1	6	1	...	...	2	2	...	2	...	...	...	...	33
Pneumonia	1	1	3
Pneumonia ...	53	127	143	46	146	48	25	24	69	33	24	135	73	43	41	8	124	123	103	171	145	46	25	38	38	42	55	33	63	52	2119		
Puerperal Fever ...	4	10	12	14	16	4	...	6	3	1	6	11	4	1	7	...	8	10	8	3	5	8	3	2	7	2	9	6	7	2	186		
Ophthalmia Neonatorum	1	30	17	7	59	7	2	2	11	...	4	8	15	5	4	2	11	45	38	54	32	23	1	1	15	5	7	4	17	...	433		
Total ...	238	469	491	343	612	253	197	150	268	136	153	393	429	199	244	79	465	513	535	580	478	278	120	177	266	200	313	176	404	153	326	9638	

TABLE VIII.
Temperature of the Air and Ground, Rainfall, Sunshine, and Wind in each Month of the Year 1923.
Observed at the Birmingham and Midland Institute Observatory, Edgbaston,
by Mr. A. J. Kelley.

MONTH.	TEMPERATURE OF THE AIR.				TEMPERATURE OF THE GROUND.		Hours of Sunshine.		Rainfall in Inches.		Days on which 0.01 inch or more of Rain Fell.	Miles of Wind.			
	Highest in the shade.		Lowest in the shade.		Mean for the Month.		Maximum at 1 foot deep.	Maximum at 4 feet deep.	1923.	Above or below the average.*		1923.	Above or below the average.*		
	1923.	Above or below the previous highest.*	1923.	Above or below the previous lowest.*	1923.	Above or below the average.*									
JAN.	54	— 4	38°	+ 27	41.8°	+ 3.7	44.8°	45.1°	39	+ 5	1.85	— 0.20	19	11054	+ 622
FEB.	55°	— 7	30°	+ 22	41.5°	+ 2.6	46.0°	45.2°	43	— 6	5.89	+ 4.25	25	9677	+ 230
MAR.	64°	— 6	31°	+ 12	43.1°	+ 2.0	47.0°	44.5°	51	— 25	1.57	— 0.42	15	8999	— 1579
APR.	61°	— 18	31°	+ 5	45.2°	— 0.3	47.0°	45.2°	92	— 33	2.50	+ 0.83	17	9518	— 14
MAY	75°	— 7	34°	+ 3	48.5°	— 3.5	52.0°	47.0°	127	— 40	1.68	— 0.40	19	9848	+ 1057
JUNE	71°	— 14	41°	— 3	54.0°	— 3.7	55.2°	49.6°	83	— 74	0.48	— 1.61	10	10062	+ 1728
JULY	92°	+ 3	48°	+ 9	63.4°	+ 4.3	66.1°	53.8°	160	+ 4	4.32	+ 1.92	15	8469	+ 156
AUG.	78°	— 16	43°	+ 2	59.1°	— 0.2	60.3°	54.2°	186	+ 40	2.51	— 0.38	18	10003	+ 1551
SEPT.	71°	— 20	39°	+ 7	54.0°	— 1.6	55.8°	53.2°	130	+ 20	2.67	+ 0.85	16	8481	— 478
OCT.	60°	— 19	37°	+ 9	48.9°	+ 0.2	56.2°	52.0°	74	— 2	3.51	+ 0.88	22	11246	+ 2319
NOV.	57°	— 5	25°	+ 5	38.1°	— 4.5	48.0°	50.0°	69	+ 24	1.82	— 0.34	14	9569	— 332
DEC.	50°	— 7	25°	+ 11	38.3°	— 1.1	42.5°	45.7°	26	+ 5	3.11	+ 0.33	21	9131	— 1497

* In the thirty-six years 1887-1922.

TABLE IX.

Meteorology and Mortality in each week of the year 1923.

WEEK.		Total Deaths.	Deaths under 1 year.	Deaths 65 and up.	DEATHS FROM							TEMPERATURE.				Horizontal Movement of Air in Miles.	Hours of Sunshine.	Rainfall in Inches.
No.	Ending. 1923.				Measles.	Whooping Cough.	Diarrhoea and Enteritis under 2.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	Respiratory Diseases.	of the Air.			of Ground				
											Highest in Shade.	Lowest in Shade.	Mean of daily Maxima and Minima.		Highest, 4 Feet Deep.			
1	Jan. 6	204	30	70	...	...	5	17	4	37	50	34	40	45.1	2444	10.4	1.26
2	" 13	209	36	67	2	...	9	11	2	37	54	32	40	45.0	2790	11.9	0.17	
3	" 20	183	28	69	1	1	4	15	2	38	52	35	42	44.8	2508	5.9	0.34	
4	" 27	216	17	84	2	1	1	18	3	30	49	30	42	44.3	2123	8.7	0.05	
5	Feb. 3	196	43	56	3	2	5	12	3	39	55	41	49	44.4	2916	8.3	0.22	
6	" 10	217	38	72	3	1	4	14	...	41	51	32	42	45.2	2835	16.8	1.91	
7	" 17	215	40	70	6	...	2	14	3	42	48	35	41	45.0	1676	7.9	1.39	
8	" 24	230	37	75	7	...	4	14	1	59	48	30	36	44.8	1885	5.5	1.39	
9	Mar. 3	192	32	59	6	2	2	15	3	44	53	30	44	44.0	2881	20.2	1.45	
10	" 10	261	49	85	7	1	4	20	6	50	48	33	40	44.0	2159	5.4	0.33	
11	" 17	220	31	76	14	2	1	16	5	47	48	31	40	44.0	2495	2.8	0.08	
12	" 24	245	31	87	13	...	3	18	3	53	53	34	42	43.9	1898	13.4	0.42	
13	" 31	266	38	63	21	2	2	22	5	44	64	36	49	44.5	1355	16.5	0.32	
14	Apr 7	228	43	59	11	...	6	16	2	52	61	37	46	45.1	1578	7.3	0.31	
15	" 14	268	39	81	11	...	2	26	4	71	57	32	45	45.2	2285	23.9	1.77	
16	" 21	224	30	83	8	1	4	23	1	47	54	34	44	45.2	2618	20.4	0.03	
17	" 28	232	27	69	12	...	3	18	5	43	56	31	44	45.1	2420	37.8	0.34	
18	May 5	259	34	88	6	...	2	17	4	62	75	43	55	46.0	1658	26.4	0.70	
19	" 12	220	26	102	9	...	...	11	4	45	65	34	48	47.0	2332	46.8	0.21
20	" 19	234	30	67	5	...	2	19	5	50	53	34	44	47.0	2710	31.3	0.32	
21	" 26	199	25	67	3	1	1	14	2	39	59	36	48	46.8	1986	21.1	0.25	
22	June 2	213	33	78	2	...	3	15	8	46	57	38	47	46.9	2241	6.1	0.25	
23	" 9	213	31	65	9	2	3	22	2	42	65	41	53	47.3	2586	15.8	0.19	
24	" 16	179	21	61	3	2	3	19	1	30	64	46	54	48.3	2956	31.2	0.14	
25	" 23	179	15	59	3	...	1	12	2	33	70	43	55	48.9	2250	20.3	0.12	
26	" 30	155	10	56	2	2	3	14	3	22	71	46	56	49.6	1808	13.7	0.02	
27	July 7	164	20	55	1	1	3	16	4	27	88	48	64	50.6	1695	32.1	0.04	
28	" 14	183	18	54	...	...	2	17	3	29	92	55	70	52.8	1314	42.7	1.58
29	" 21	161	25	54	4	2	6	11	3	15	77	51	62	53.4	2085	46.6	0.22	
30	" 28	136	14	40	4	...	2	13	3	16	73	48	60	53.8	2374	26.9	1.74	
31	Aug. 4	152	22	49	3	3	3	25	1	17	72	49	59	53.7	2486	45.7	0.88	
32	" 11	127	10	35	1	...	2	17	4	15	78	51	64	53.6	1616	57.9	0.03	
33	" 18	158	17	44	...	1	3	16	2	25	77	52	61	54.2	2104	30.4	0.63	
34	" 25	142	21	47	1	...	7	11	2	18	68	46	57	54.1	2345	24.0	0.98	
35	Sep. 1	145	22	45	2	...	6	14	2	11	68	43	54	53.8	2730	37.0	0.65	
36	" 8	171	21	53	...	...	5	18	1	25	69	41	55	53.1	1810	44.7	0.13
37	" 15	123	18	31	...	...	10	12	3	15	69	44	55	52.9	1568	28.1	0.59
38	" 22	161	27	43	...	2	13	12	2	17	60	39	50	52.8	2552	31.6	1.28	
39	" 29	157	16	58	...	1	4	14	2	17	71	42	55	52.1	2030	16.1	0.62	
40	Oct. 6	179	25	58	...	...	5	15	...	19	71	37	50	52.0	2078	10.8	0.53
41	" 13	176	31	54	...	3	8	14	3	26	60	39	50	52.0	2404	15.5	1.43	
42	" 20	166	20	51	...	1	11	11	3	27	59	37	48	51.3	2101	20.9	0.20	
43	" 27	173	16	69	...	1	5	10	2	20	56	42	49	50.7	3288	20.6	1.24	
44	Nov. 3	158	23	45	...	1	7	18	3	22	57	40	49	50.1	2551	15.6	0.16	
45	" 10	175	21	62	...	...	3	12	2	25	49	29	39	50.0	2063	21.2	0.34
46	" 17	208	21	80	...	...	2	30	4	34	50	29	41	48.9	3272	21.0	1.13
47	" 24	205	33	85	1	...	5	17	2	36	43	26	36	48.0	1888	12.8	0.25	
48	Dec. 1	243	25	87	...	1	2	19	1	41	42	25	33	46.5	1867	8.5	0.54	
49	" 8	252	19	99	...	1	5	26	3	50	47	30	38	45.7	1911	9.8	0.29	
50	" 15	229	11	97	...	1	1	21	2	62	46	31	40	44.9	1754	2.3	0.02	
51	" 22	237	33	85	...	2	7	21	3	54	50	27	39	45.0	2529	7.2	0.65	
52	" 29	210	27	86	...	3	1	18	3	43	46	25	37	45.0	2106	7.0	0.89	

